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ABSTRACT

This manual incorporates the Clinical Teacher Education Guidelines which grew out of a program of research studies conducted by the Research in Teacher Education (RITE) program from 1980 through 1985. Three major studies covering preservice, induction, and inservice contributed to a better understanding of the nature and effects of clinical teacher education--learning activities that occur in the classroom and school setting. Findings from the descriptive studies of preservice clinical teacher education and programs of induction indicated certain characteristics to be consistently associated with desired outcomes in terms of teacher education. The clinical teacher education guidelines presented here are based on those program characteristics. The papers reporting on the findings of the studies are included in the manual appendix. Materials on the five workshop sessions make up the bulk of the document. They include in each case an outline of session objectives, suggestions for the trainer, handouts to be used in the session, and overheads. (JD)

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Research and Development Center for Teacher Education

The University of Texas at Austin

Austin, Texas 78712

CLINICAL TEACHER EDUCATION GUIDELINES

Gary Griffin, James Hoffman, Sara Edwards,
Margaret Paulissen, Susan Barnes,
Sharon O'Neal, and Carol Leighty

Report No. 9071

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James V. Hoffman, Program Director

September 1985

SP 026955

Clinical Teacher Education Guidelines

The application of the Clinical Teacher Education Guidelines developed through the research activities of the Research in Teacher Education program of the Research and Development Center at The University of Texas at Austin is illustrated in the manual presented here. Because of the complexity of teaching it is presumptuous to claim for any particular strategy or program of teacher education a direct cause-effect linkage to "good" teaching greater than that for any or every other strategy or program. In addition, many individuals cling tenaciously to a belief that "good" teaching is more the result of innate personal characteristics than of any education or training activities. However, a growing number of studies of the effects of teacher education programs of instruction support the claim that teachers are more effective when they participate in ongoing intentional education activities than when they do not. And there is strong evidence that it is in the ongoing classroom and school setting that prospective teachers and career teachers learn more about their craft and come to depend upon some professional practices rather than others (Griffin, 1985). It is learning activities, from preservice through induction and inservice, that occur in this setting that are considered "clinical teacher education." It is to this "clinical" component of the much more comprehensive and inclusive teacher education enterprise that the guidelines presented in this manual apply.

These guidelines have grown out of a program of research studies conducted by the Research in Teacher Education (RITE) program from 1980 through 1985. Three major studies covering preservice (Griffin et al., 1983), induction (Griffin et al., 1985), and inservice (Griffin et al., 1983) contributed to a better understanding of the nature and effects of clinical teacher education in the United States and provided the basis for the Clinical Teacher Education Guidelines presented here. (See Appendix A for summaries of the three studies.) Activities from the San Diego public schools staff development program which incorporated the research of the RITE program are included as illustrations of specific adaptations of the more generalizable Clinical Teacher Education Guidelines.

Findings from the descriptive studies of preservice clinical teacher education and programs of induction indicated certain characteristics to be consistently associated with desired outcomes in terms of teacher education. Results from the quasi-experimental study of inservice clinical teacher education in which findings from research on effective teaching and change were intentionally introduced into the ongoing program of one school district indicated certain program characteristics to be predictably associated with desired outcomes.

The clinical teacher education guidelines presented here are based on those program characteristics found to be consistently associated with desired outcomes in all three studies. While these guidelines may apply in some degree to other components of teacher education, they were identified in the clinical or school context only. None of the guidelines have been determined to be inherently more productive than others and the order in which they are presented has no relationship to their relative importance.

Guidelines

1. Pay attention to the specific situation in which the teacher works: the classroom, the school, the district. Requiring behaviors that are made impossible by circumstances within the context is likely to result in anger, frustration, or simulated

4

conformity. Construct or select educational activities which are consistent with the situational needs and possibilities.

2. Relate specific activities through an ongoing program which provides for growth for individuals at different levels of professional development. Putting groups through a number of unrelated "one-shot" learning experiences is likely to result in boredom for some individuals, confusion for others, and disinterest and lack of professional development for the staff over time.
3. Allow all parties to the learning experience to be a part of the decision-making, the planning, the implementation, and the evaluation of specific activities and of the ongoing program. Persons who participate in and have some degree of control over their own educational experiences have a greater sense of ownership and responsibility and are more likely to achieve the desired outcomes.
4. Develop programs and activities on the basis of what is known about teaching and learning. In spite of areas of controversy and ignorance, the findings of researchers and the craft knowledge of master teachers provide a strong knowledge base from which to formulate and evaluate. In contrast to the trial and error, sink or swim alternative, reliance upon knowedge-based clinical teacher education provides a rationale for specific practices, makes intentions explicit, and connects individual activities into a coherent and connected whole. In addition, this use of a knowledge base can promote inquiry and discovery by providing a

means of evaluating, questioning, and identifying where knowledge is lacking, i.e., what isn't known.

5. Explain clearly and explicitly the purpose and intent of programs and activities, as well as the expectations and requirements of participants. When persons have a clear understanding of what is expected of them and why they are expected to participate in a given program or activity, they are more likely to make substantive progress in contrast to merely giving procedural compliance or even resistance.

6. Provide time, encouragement, and guidance for participants to think about their professional activities, evaluating the present situation and planning for the future. This reflection can help participants better relate their learning experiences to their teaching activities.

These guidelines were followed in the RITE intervention used in the Changing Teacher Practice study of inservice clinical teacher education. Following the study the intervention was adapted for use in the ongoing program of the district in which the study was conducted. That adaptation was made in the form of a training manual. The training manual is presented here to illustrate specific use of the generalizable guidelines and the RITE intervention.

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

A TRAINER'S MANUAL

SAN DIEGO UNIFIED SCHOOL DISTRICT

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GENERAL INFORMATION

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Background of the Program

(The San Diego Perspective by Carol A. Leighty)

The program discussed in this manual is an adaptation of an interactive research study conducted by the Research and Development Center for Teacher Education at The University of Texas at Austin. The purpose of the Changing Teacher Practice Study was to field-test a research based program aimed at training school site staff developers (i.e., principals, vice principals and resource teachers) in the areas of more effective teaching and improved staff development.

The R&D team tested the premise that there is a large knowledge base in the areas of effective teaching and effective staff development which is not reaching site administrators or teachers. Therefore, this program not only studies and applies research based effective teaching and staff development behavior, but also provides a selection of delivery systems to help the site manager successfully implement these behaviors.

As indicated by Berman and McLaughlin (1978), an innovation such as the one developed by the R&D Center is naturally adapted by each district according to the needs of that district. The San Diego City Schools' program is a direct adaptation of the original research, The Changing Teacher Practice Study, conducted by the R&D Center. Changes were made to meet district needs, participant requests, and trainers' abilities.

The San Diego City Schools would like to thank Gary Griffin, Susan Barnes, Sharon O'Neal, Sara Edwards, Maria Defino, and Hobart Hukill for their expertise, support and friendship. A very large part of this manual is a replication of their training sessions as best as my notes, handouts, and memory serve me. Without their ongoing assistance this program would not be possible.

There are other individuals in our district who have believed in this program from the beginning and have never faltered in their support. Mr. Linden Courter recognized the values of this program to our district and Dr. Ralph Patrick encouraged its full implementation. Both of these gentlemen found money in a tight budget and time in a busy schedule to continue after the initial study was completed. David Mittleholtz, Ron Anderson, Carolyn Anderson, Mary Hopper, and John Callahan lent their expertise, support, and continuing enthusiasm to our program. Thank you all very much!

Purpose of the Program

The purpose of the program is to provide school instructional leaders with the knowledge and skills to implement at the site level more effective teaching and staff developer behaviors. This program has a solid research base and a practical application delivery system which enables site managers to successfully implement change and improve classroom instruction.

> This program blends a comprehensive knowledge base and a selection of delivery systems which enables a site administrator to present inservice in order to implement and support a more effective teaching program.

Program Objectives

To provide a strong research base in the areas of:

- effective teaching
- effective staff development
- classroom management and organization
- academic learning time
- coaching
- change strategies

To provide strategies and activities in the area of instructional support.

To provide support for a site developed staff development program.

To identify effective teaching behaviors.

To plan a site staff development program utilizing program strategies.

Program Description

Target Audience

School Administrators and others responsible for continued improvement of classroom instruction.

Format

Nineteen hours of inservice is divided into four four-hour workshops and one three-hour workshop. Sessions utilize a variety of components: lecture, large and small group discussion, videotapes, simulation, case studies, and planning time. Individual follow-up meetings should be held at each site to provide mutual support, monitor implementation, and problem-solve possible concerns.

The sessions are best presented every two weeks over a two-month period with the site meeting held after the final session.

Sample Training Series

Week 1	Week 3	Week 5	Week 7	Week 9
Session A	Session B	Session C	Session D	Session E
4 hours	4 hours	4 hours	4 hours	3 hours

Other variations are sometimes more convenient and have proven successful, for example:

Week 1	Week 2	Week 3
Sessions A & B	Sessions D & C	Session E
8 hours	8 hours	3 hours

It is important to present the training over a period of time to ensure understanding of the concepts, to provide time to read the many handouts and to reflect on the information and how it relates to each staff developer and his/her site. Holding sessions A and B prior to the opening of school is critical. These two sessions decide the effective teaching and staff developer behaviors and provide the necessary planning time to develop the site plans.

Planning and Preparation for the Teacher

1. Review thoroughly the trainer's manual and the related research therein. Any further study in the areas of effective schools, effective teaching, change strategies, coaching, academic learning time, Organization Development, and the Concerns-Based Adoption Model are helpful and provide a solid background. A bibliography is included.
2. Determine the needs of your target audience. (Have participants received training earlier in any of these areas? What particular needs or concerns do they have that may be addressed?)
3. Adapt the training series agendas as needed.
4. Prepare large group presentations based on content provided.
5. Prepare overhead transparencies.
6. Prepare handouts, including a binder or folder to hold all materials.
7. Select and adapt activities as appropriate.
8. Obtain needed equipment and supplies.
9. Evaluate feedback from participants as useful information for developing further training sessions.

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session A - four hours

SAMPLE AGENDA

First Hour

Opening Remarks

- Introductions and Overview of the Training
- Preliminary Findings of the Changing Teacher Practice Study
- Explanation of today's agenda
- Case Study #A-2

Second Hour

Focus on Effective Teaching

- Background
- Research base
- Rationale for Selected Teacher Behaviors
- Barnes Teacher Observation Instrument (BTOI)

BREAK

Third Hour

Focus on Effective Teaching (continued)

- Planning and Preparation
- Organization of the Classroom
- Presentation of Academic Material
- Presentation of Rules and Procedures
- Mathematics Research

Fourth Hour

Planning for Site Staff Development

- Use of planning workbook

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session B - four hours

SAMPLE AGENDA

First Hour

- Review of Session I (Spaced Practice)
- Modeling of Effective Teaching Behaviors
- Recognizing Desired Teaching Behaviors

Second Hour

- View of videotape #1, "The First Day of School in a Third Grade Class."*

Third Hour

- Providing Instructional Support: Desired Staff Developer Behaviors
- research base

BREAK

Fourth Hour

Application of Staff Developer Behaviors

- case study B-3
- discussion

Planning for Site Implementation (cont.)

- use of planning workbook

*Videotape EFFECTIVE CLASSROOM MANAGEMENT available from:

Association for Supervision and Curriculum Development
225 North Washington Street
Alexandria, VA 22314

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session C - four hours

SAMPLE AGENDA

First Hour — Review of Sessions I and II

Opportunity to interact about teaching and schooling

Objectives and rationale for today's meeting

Introduction to effective observation techniques

Second Hour — Identification of positive teaching behaviors

1. use of narrative - code
2. view videotape - code
3. discuss completed observation forms

BREAK

Third Hour — Change Strategies

- I/D/E/A
- Peer Group Strategy
- The Rand Study

Fourth Hour — Peer Group Strategy simulation

- discussion of simulation
- planning time

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session D - four hours

SAMPLE AGENDA

First Hour	Review of Sessions I - III The Theory of Coaching Mortimer Adler Joyce and Showers teacher to student, teacher to teacher, staff developer to teacher
Second Hour	View and discuss coaching videotape BREAK
Third Hour	Introduction to Increased Academic Learning Time (ALT) • ALT Handbook
Fourth Hour	Change Strategy: Organization Development • OD readiness test and discussion • planning time

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session E - three hours

SAMPLE AGENDA

First Hour	Review of previous sessions with emphasis on the Rand Study and I/D/E/A.
Second Hour	CBAM Overview with slide tape.
	BREAK
Third Hour	Hour completion of SoC questionnaire and graph. Discussion of SoC profile.

SESSIONS

SESSION A

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

PURPOSE This four hour workshop provides the background and rationale as the research base for the subsequent 16 hours.

Participants will be able to:

- describe the purpose of the program
- describe and identify the research based effective teacher behaviors
- begin planning for site implementation

TRAINING HINT Since one of the major emphases of this program is effective teaching it is important that the trainer model this behavior from the outset.

Presenting this information by including as many of the positive teaching behaviors as outlined in the Barnes study has three worthwhile purposes:

1. Presents concrete examples for participants.
2. Provides a positive training model which participants can later model at the site.
3. Involves the participants in what does not have to be a very didactic presentation. Discussion and questions more easily occur and participants become involved. Interaction makes for a lively session.

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session A - four hours

SAMPLE AGENDA

First Hour

Opening Remarks

- Introductions and Overview of the Training
- Preliminary Findings of the Changing Teacher Practice Study
- Explanation of today's agenda
- Case Study #A-2

Second Hour

Focus on Effective Teaching

- Background
- Research base
- Rationale for Selected Teacher Behaviors
- Barnes Teacher Observation Instrument (BTOI)

BREAK

Third Hour

Focus on Effective Teaching (continued)

- Planning and Preparation
- Organization of the Classroom
- Presentation of Academic Material
- Presentation of Rules and Procedures
- Mathematics Research

Fourth Hour

Planning for Site Staff Development

- Use of planning workbook

MATERIALS NEEDED:

Handouts:

A-1	Agenda
A-2	Case Study A-2-1 Elem. and/or A-2-2 Junior High
A-3	Barnes Report #9009
A-4	BTOI
A-5	List of Desired Teacher Behaviors
A-6	*Teachers Manual: Missouri Mathematics Effectiveness Project*
A-7-1	*Organizing and Managing the Elementary School Classroom*
A-7-2	*Organizing and Managing the Junior High School Classroom*
A-8	Site Planning Booklet

OVERHEAD TRANSPARENCIES

A-1	Case Study
A-2	Discussion of Case Study
A-3	Flow Chart showing purpose of program
A-4	Effective Teacher Picture
A-5	Research Criteria
A-6	Main Research Studies
A-7-1	Selected Studies of Research
A-7-2	Teaching
A-8-1-8-6	Selected variables from research on teaching related to the learning environment
A-9	BTOI
A-10-1-10-5	Desired Teacher Behaviors
A-11	Site Planning Booklet

SESSION A - FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

FIRST HOUR

The Trainer should:

Introduce oneself.

Have group

introduce themselves, (i.e., name, location, position, why they are attending).

Hand-Out Agenda #A-1

SCRIPT:

Introduction

This workshop is the first in a series which will give you the research base and the skills to help you in the areas of instructional improvement and staff development.

This workshop may provide the tools to help teachers do a better job of teaching and, therefore, make your job as the instructional leader easier and more successful.

Background

This inservice is the result of a concept developed and field tested by the Research In Teacher Education (RITE) program are of the Research and Development Center for Teacher Education at The University of Texas at Austin. This R&D Center is one in a group of nation-wide centers devoted to educational research and staff development.

The R&D Center in Austin is concerned with the education and improvement of teachers in the classroom. The researchers there study and observe the continuum of teacher education from preservice or student teaching through the career or inservice period. Other research and development centers study such educational concerns as vocational education and evaluation.

This study was rooted in several assumptions about schools and teachers.

The majority of teachers and administrators in school settings are not influenced by the findings of research and, in fact, may be unaware of them (Griffin et al., 1983). In other words, there is a large amount of observational and descriptive research but its not getting to the classroom teacher and administrator where the most benefit could occur.

Griffin et al. (1983) cite several reasons for this:

" - reluctance of researchers to communicate to other constituent groups other than their colleagues.

- the rigidity of school persons to reconceptualize the role of teacher.

- organization of schools.

- the "closed system" nature of many schools.
- the lack of rewards for changing behavior" (Tikunoff, Ward, & Griffin, 1981).

The link between research and the classroom teacher appears to be missing. This program attempts to provide that link.

The R&D Center personnel field tested a staff development package in the San Diego City Schools to train self developers (i.e., principals, vice-principals and resource teachers) in the areas of more effective teaching and improved staff development.

WHY SAN DIEGO CITY SCHOOLS?

The R&D staff felt that certain district and site characteristics were desirable for the study and should reflect national concerns:

1. multi-cultural students and educator population.
2. active professional association (teacher and administrator) and linkage with the local colleges and universities.
3. a setting where individuals took the responsibility for staff development.
4. support for this function in terms of limited release-time for teachers and administrators.
5. a history of being receptive to issues of school improvement. The district should be amenable to change and reflection.

   San Diego was chosen because it has a reputation for doing good things--willing to try new staff development ideas. San Diego City Schools also have traditional problems of schooling--so the research could be conducted in a "real setting."

6. staff development to take place at the building level.

   The original San Diego study was conducted by R&D Center. Ten staff developers were chosen--four elementary principals and six resource teachers. Two principals became part of the experimental group which received the treatment or training, two principals became part of the central group which conducted "business as usual." Three resource teachers became the experimental group and three the blind control.

The five members of the experimental group received 30 hours of training in a 5-month period in areas of effective teaching, effective staff development, school change and planning. In turn these individuals inserviced their site personnel.

The R&D Center provided a team of specially trained classroom observers to sit in two selected classrooms at each site to collect data regarding the number of effective teaching behaviors exhibited by the selected teachers. These observations occurred the first day of school and once a month for three hours finishing in January for a total of 12 hours observation.

The tool utilized during the classroom visits was the Barnes Teacher Observation Instrument which we will be discussing in detail later this morning.

WHY ARE WE HERE TODAY?

WE HAVE DATA TO SUPPORT THE STATEMENT THAT SPECIFIC TEACHING BEHAVIORS DO MAKE A DIFFERENCE. Teacher effectiveness research has been conducted for nearly a century. However, in the 1960s, Coleman (1966), Mayeske (1966), and Mosteller and Moynihan (1972) stated what teachers did in the classroom didn't make much difference. They believed that students were more affected by their socioeconomic background, what they did or didn't eat for breakfast...A number of teachers and researchers rightfully took umbrage to this statement and set out to prove that teachers do indeed, make a difference. Research being presented today to support this premise has become known as "teacher effectiveness research." The studies meet strict research methodology and take place in real classroom settings. "We didn't invent this stuff." The information given to you today was found in thousands of classrooms across the United States by trained observers. It is the intention of this program to get this research into the classroom.

STAFF DEVELOPER CASE STUDY A-1
DIRECTIONS TO PARTICIPANTS

H.O. A-2
Elem.

The case study you have been given describes Ms. Boggs, a fifth grade teacher in her first year of teaching.

O.V.#A-1
Elem.

Consider yourself the site staff developer, Ms. Apple. At the bottom of the page identify the teacher's needs and how you would approach her after observing this

Distribute case study on Ms. Boggs

Language Arts lesson. What is your definition of objective feedback?

Read Directions→ (See trainer responsibilities)

Allow 8 minutes to read and jot down ideas.

Possible answers include:

VIGNETTE #1

Allow 10 minutes for discussion and questions.

Needs: Classroom management, experience, organization management and organization of materials, classroom procedures, explicit directions, objective feedback, traffic patterns, preschool inservice.

O.V. #A-2

Means: Begin on a positive note, teacher's perception of lesson, self-evaluation, observation of other teachers, demonstration lesson.

QUESTIONS TO ASK PARTICIPANTS:

1. What do you feel is Ms. Bogg's greatest need(s)?
2. How would you approach her with these concerns?
3. What suggestions would you make to improve the next lesson?
4. What activities can be provided to Ms. Boggs to improve instruction?

STAFF DEVELOPER CASE STUDY A-2-2

May be used with Jr. High Administrator group

First Day of School in a Seventh Grade Class.

This case study describes the first day of school in a seventh grade math class. it is not intended as a criticism of teachers, but as a tool for a staff developer to identify teacher needs.

Handouts and transparencies

Needs: Classroom management and organization, clear teacher expectations, attitude, routine.

H.O. junior high

Means: Preschool inservice by staff developer, system for seating, procedures for the first day of school, establish a task oriented environment.

ARE THERE ANY QUESTIONS OR COMMENTS?

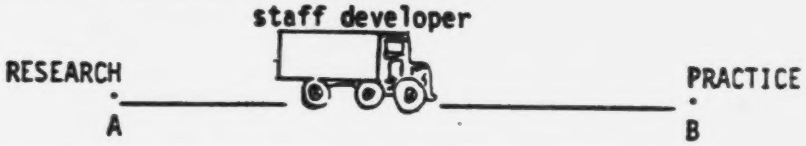
Background:

Now we are going to review two major bodies of research "teacher effectiveness and change." The background that these studies will provide enables a staff developer to recognize the possibilities and challenges proposed by change. The studies suggest ways to improve teacher effectiveness in the light of the findings of change research.

As site administrators we wear many hats. For the purpose of today's session and those to follow, consider yourself a staff developer. Put on that staff development hat and be ready to learn techniques to help "develop staff."

Overhead A-3

Research Base:
One of the reasons that teachers are not receiving findings on research and test scores are not improving is there has not been a vehicle to deliver the research to the teachers. There is a lot of research "out there" but teachers for the most part don't have the time or the inclination to go to that research. The person who can most effectively and painlessly do this is the staff developer. The staff developer becomes the vehicle for turning research into practice.

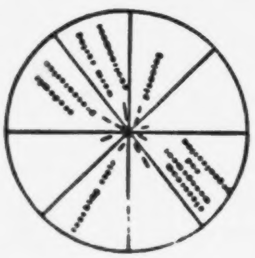


The intent of the session today is twofold:

(1) to provide a solid research base in the areas of effective teaching

Effective Teacher Pie, Overhead A-4

(2) to provide the opportunity to develop a site staff development plan



When the term effective teacher is used for the intent of this project, it means: "The teacher whose classes regularly score higher on standardized achievement tests than do classes of other teachers of similar students after entering differences among the classes are statistically removed" (Brophy & Evertson, 1974; Good & Grouws, 1977). Significant results as reported in these and other studies which will be discussed today "at least provide support for the prime assumption that teaching affects learning."

Effective teaching is a small part of the larger body of research known as effective schools research. The definition of an effective teacher looks at a small, yet crucial, portion of what it is to be a teacher.

Research Base

There are many other variables, but this program will concentrate on two.

- academic presentation
- management and organization

Rationale:

As stated earlier, there is a lot of research "out there." The research reported today is real--it was collected by observing thousands of teachers in schools throughout the country. This is not theory, it is not "what should be." This research represents what is effective teaching as defined by our earlier statement.

This research document being handed out now is a synthesis developed by Dr. Susan Barnes of The University of Texas at Austin. She studied hundreds of reports on effective teaching, narrowing them down to the 14 as described in this hand out. Dr. Barnes selected these 14 because they met the following criteria (exhibit transparency).

Overhead A-5

1. Research methodology can be verified as procedurally rigorous and not open to interpretation.
2. Findings emerge from "real" classrooms--not laboratory settings.
3. Findings are amenable to precise and clear translations to practitioners.
4. The findings are directly related to concerns and problems of teachers and teacher/educators.

Dr. Barnes also limited her studies to the basic subject areas of Reading, English, and Mathematics because those content areas are evaluated by criterion measures such as the Metropolitan Achievement Test or the Iowa Test of Basic Skills.

Descriptions of Selected Studies

Overhead A-6

Three sets of major research provide most of the information in this synthesis.

1. Management and organization of the classroom, correlational studies in the second and third grades done by Jere Brophy and Carolyn Evertson.

2. The work of Tom Good and Douglas Grouws on the Missouri Mathematics Effectiveness Project beginning in third and fourth grade and later conducted in mathematics classes in grades six through nine.

3. The work of Jane Stallings--research in the teaching of reading grades 7-12.

"Other studies such as the Follow Through Evaluation in Florida by Robert Soar and Ruth Soar and the work of McDonald and Elias on the Beginning Teacher Evaluation Study contribute important findings (Barnes, 1981)." (Exhibit transparencies of pp. 4 and 5.)

Distribute the hand-out H.O. A-3

Turn to pages 4 and 5 of the Barnes Report. The first five studies are in the area of classroom management and organization of grades 1-8. As you can see this is an extended study conducted by four individuals over a span of six years.

Studies number six-nine are math research conducted in upper elementary and junior high math classes. The intent of these studies was to change teacher practice in the area of mathematics.

The remaining five studies are from a variety of areas with the last two being specifically junior and senior high reading.

Planning and Preparation:

Let's turn to page 8 in the Barnes hand-out. We are now going to walk through a list of behaviors which Barnes found to re-occur over and over in these selected studies. In other words, the behaviors which are about to be described, have consistently been found in thousands of classrooms over the country to be those behaviors exhibited by "the more effective teacher" and once again I'm going to define "the more effective teacher."

Walk participants through the study using Overhead A-7-1, 7-1 as a guide.

For the purpose of this study: "A more effective teacher is one whose students consistently score higher on standardized achievement tests than do students of other teachers after differences have been statistically removed" (Brophy & Evertson, 1974; Good & Grouws, 1977).

Familiarization with the document by the trainer must take place ahead of time so that the information is delivered--not read.

The chart on page 8 and following pages lists the 14 studies as synthesized by Susan Barnes. The initials stand for Anderson, Evertson, and Brophy and "GG" for Good and Grouws. The "plus" marks (+) indicate a positive correlation between that behavior and higher test scores. The (-) minus sign indicates a negative correlation between that behavior and comparably higher test scores. "L" and "H" stand for lower ability and higher ability students. The definition of lower and higher ability students varies from study to study. If there is no (+) positive or (-) negative sign in a column it indicates that that study did not look at that particular behavior. Some studies look at lesson presentation, others rules and procedures, and yet others organizing instructional activities. Each set of researchers were looking at different classrooms throughout the country.

B.T.O.I

Overhead A-8

Of all the findings in the area of teacher effectiveness the ones which appear to be the most consistent are those having to do with classrooms defined as "task - work - or academically oriented." Ten of the studies in this review and many others throughout the teacher effectiveness research found positive relationships between work oriented classrooms and student achievement gains.

The terms task - work - or academically oriented classrooms are those where teachers expect and require students to pay attention; to work persistently toward completion of assignments and to concentrate on work, not socializing.

Under this broad variable of task - or - work oriented behavior we find five specific teacher behaviors:

1. Allocates time for academics--teacher consistently plans and teaches for 50 minutes of Math/Foreign Language or History.

2. Has high achievement expectations--regardless of their ability level.

3. Assumes role of instructional leader--"I am the teacher in this classroom..."

4. Assumes personal responsibility for learning. An effective teacher recognizes that the responsibility of learning falls both on the student and the teacher. Who can give an example of a teacher who does not accept "responsibility for learning"?

5. Communicates expected behaviors and attitudes. Who can give an example of an expected behavior?____________________
Attitude?____________________

Continue to proceed as such through the Barnes Study highlighting strengths and pointing out inconsistencies and weaknesses.

There is a story that goes "Only 10% of the population reads a total study..."

For those of you who read only the summaries, our next handout is a synthesis of a synthesis.

Dr. Barnes took these variables just described and found they fell into 10 major categories, with common behaviors falling into each of the 10 categories.

Overhead A-9

Hand-out
Desired Teacher Behaviors

A behavior qualified for this list only if it was found to have a positive correlation in 5 of the 14 studies.

Review handout walking through each of the 10 categories giving examples of each and/or soliciting examples from the participants

Remember these original studies were descriptive. Observers actually went into classrooms writing down what effective teachers did. These are all positive behaviors--behavior we would wish all teachers to repeat and repeat.

Hand-Out BTOI
H.O. A-4

This hand-out is the observation checklist utilized by the observers in the original study to code the behaviors exhibited by the participating teachers.

Overhead A-10

This is not an evaluation tool--it is utilized by researchers to identify as many effective behaviors as possible.

The list of desired teacher behaviors may be divided into two major categories:

Academic Presentation

Organizing and Managing the Classroom

H.O. A-5
Hand-Out The COET Manual Organizing and Managing the Elementary School Classroom or Organizing and Managing the Junior High School Classroom

The COET manual refers to the left side of the observation instrument or the second five major teacher behaviors. Let's look through the prescriptions listed in the COET manual.

Hand-Out H.O. A-6
Teachers Manual Missouri Mathematics Effectiveness Project p. 2 Key Instructional Behaviors

"This manual presents a series of teaching behaviors which in combination can make a major impact. A system of instruction that, if followed daily, will enhance student learning."

Fourth Hour
Hand-Out A-8
Site Planning Booklet

Site Planning--As we will discover in subsequent sessions, the most effective staff development occurs at the building level. The research base you have received today will not make a difference unless it is delivered at the site. The next activity will help you plan and prepare for the development of your staff.

Overhead A-11

Walk through booklet explaining terms.

Provide up to one hour for participants to begin completing the booklet, asking questions and sharing ideas.

Planning Guide
- Description of School and Classroom Regularities
  "given things that are."

Intervention Content
- What behaviors do you wish to get across?

The Intervention Process
- How are you going to get it across?

Staff Development Activities
Objectives/Activities/Dates
Provisions for:
- teachers to interact about teaching and schooling
- staff meetings, grade level meetings, department meetings. Substance vs. procedure

- peer observations and feedback discussions
- "on call" assistance site or district resources
- directed reflection. Analysis and decision making by teachers

CLOSURE SESSION A

HANDOUTS SESSION - A

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session A - four hours

SAMPLE AGENDA

First Hour

Opening Remarks

- Introductions and Overview of the Training
- Preliminary Findings of the Changing Teacher Practice Study
- Explanation of today's agenda
- Case Study #A-2

Second Hour

Focus on Effective Teaching

- Background
- Research base
- Rationale for Selected Teacher Behaviors
- Barnes Teacher Observation Instrument (BTOI)

BREAK

Third Hour

Focus on Effective Teaching (continued)

- Planning and Preparation
- Organization of the Classroom
- Presentation of Academic Material
- Presentation of Rules and Procedures
- Mathematics Research

Fourth Hour

Planning for Site Staff Development

- Use of planning workbook

Directions: Read the following vignette. Evaluate this staff developer's efforts. Ask yourself the following questions.

1. What do you see as Ms. Boggs' greatest need at this time?
2. Would you approach this situation in the same way? If so, how would your actions differ from Ms. Apples? If not, why not?

Vignette #1

Ms. Boggs is a first-year teacher assigned to fifth grade. Ms. Apple, her staff developer, is observing her during Language Arts instruction. Her lesson focuses on how to write a research paper. The academic portion of the lesson seems well planned. As a part of the planned activities, students are required to go to different areas in the room to obtain paper, reference books, and handouts. Most students appear uncertain about where materials are located. Others spend half of the allotted academic time attempting to find materials.

Ms. Apple plans to meet with this teacher after class and share her objective notes from this observation.

THE RESEARCH AND DEVELOPMENT CENTER FOR TEACHER EDUCATION
Research on Classroom Learning THE UNIVERSITY OF TEXAS AT AUSTIN

FIRST DAY OF SCHOOL IN A SEVENTH GRADE CLASS

A Case Study to Critique

Before the tardy bell rings, the teacher stands outside of the room, monitoring hallway traffic. Students enter the room talking loudly as they choose their seats. When the bell rings, the teacher enters the room and closes the door. She asks the class if they are all in the right room: "Is anyone not sure this is the right class?" No students respond. The teacher's name is written on the front board.

The teacher says, "All right, let's assign seats." She calls off the students' names that she has on the list, and she indicates seats in alphabetical order. Students grumble but they are orderly as they follow the teacher's directions for new seating. A student arrives late, and the teacher changes the seating of some students to retain alphabetical order. About this time, an embarrassed student approaches the teacher and admits that he seems to be in the wrong class. He leaves. Another tardy student arrives. The teacher asks this student simply to take the last seat.

The teacher leads a short discussion about why class rules are necessary. She ends the discussion with, "Even though they are necessary, I know you don't like having them, and I don't either. I wrote some of them here." The teacher has six rules listed on the blackboard:

1. No gum chewing.
2. Be in your seat when the bell rings.
3. Bring materials to class.
4. No abusive language.
5. I dismiss you, not the bell.
6. Do not touch the teacher's things.

The teacher briefly explains what each rule means. Some students call out comments or questions, which the teacher answers.

Then the teacher announces that they will fill out some information forms. Students groan. One student asks if he can sharpen his pencil. The teacher says, "Yes," and this question reminds her of a requirement she has not mentioned yet. She tells students they must always use pencil in this class. Meanwhile, about eight students have congregated at the pencil sharpener. The teacher passes out index cards and begins to dictate what students are to list on the card while several students still wait to sharpen their pencils. Her instructions are interrupted by two students who do not have pencils. The teacher gives one a pencil, and arranges for the second student to borrow a pencil from another student. Then she continues with her directions. She tells students to list their name, address, phone number, birthday, names of parents or guardians, and some other information about their home or family. The process is slow, and there is occasionally confusion. A student calls out, "This could go on and on, couldn't it?" The teacher ignores the remark. The teacher has students pass the cards to the front of the row, but one student fails to do so. The teacher discovers this when the student waves it in the air, and takes up the missing card.

The teacher tells students to get out a sheet of paper. She then begins to explain the assignment (amid some talking), which is to write an essay about what they want to learn in this class (a mathematics class). Most students settle down to listen but directions are interrupted when a student calls out, asking what heading to use on their paper. The teacher tells student to put their name, the date, and the period number at the top of the page, and then she continues with some brief directions about what to write. "What do you really want to get out of this class? Decimals?" She gives an example about the importance of decimals in buying a car. Students call out questions and requests for help with spelling to which the teacher responds. On the board, the teacher lists some words that students request. Students get to work but, because requirements for length and content are unclear, almost half the class finishes very quickly. Some students begin to talk and wander around while the teacher is circulating trying to help those students who are continuing to work at the task.

After about six minutes, the teacher stops everyone and has students trade papers. She asks some students to read what others have written. This activity does not work as the teacher had planned. Students are not attentive, and some ridicule what others have written. The teacher promises that she will teach them anything they want to learn this year, adding that they will be learning decimals and place values. Loud groans greet this remark. The teacher ignores the groans and has students pass their essays forward. There is some loud talk and wandering while the class waits for public address announcements to come on. The teacher tries to learn students' names and get acquainted with individuals in the class. When the announcements come on, students are quiet at first and then one student walks up to the teacher to ask a question. The teacher quickly answers the student's question, but, seeing that other students are beginning to talk and that another girl is approaching her desk, the teacher interrupts announcements to tell students that she expects them to be quiet and to listen during announcements.

When the public address announcements are over, the teacher tells students what to expect on the following day and practices learning more of their names. The bell rings, and the students rush for the door as the teacher talks with one student who has come up to her desk with a question.

Research and Development Center for Teacher Education
The University of Texas at Austin
Austin, Texas 78712

SYNTHESIS OF SELECTED RESEARCH ON TEACHING FINDINGS

Susan Barnes

Report No. 9009

Research in Teacher Education Division
Gary A. Griffin, Program Director
September 1981

Synthesis of Selected Research on Teaching Findings

What is an effective teacher? This question may be the central question in educational research. Parents send their children to school and teachers teach those same children under the assumption that students will learn from the teachers. Although the act of teaching has often been studied, evidence to support the assumption that teaching affects learning has only recently been provided by educational research. This paper provides a brief background of research on teaching and presents major findings from recent large-scale, classroom-based studies. Limitations of the studies are noted and implications for use of the findings in classrooms are discussed.

Research on Teaching Effectiveness

Past research on teaching provided interesting information to the researcher which was of little help to the classroom teacher. Generally studies conducted during the 1930's focused on teacher characteristics such as age or schooling while studies conducted during the 1960's focused on interactions between the teacher and students (Rosenshine, 1980). Public confidence in schools and teachers during the late 1960's and early 1970's was shaken by the publication of several books which questioned whether teachers or schools could realistically be expected to influence learning (Coleman, 1966; Mayeske,et al., 1966; Mosteller & Moynihan, 1972). With these controversies as impetus some researchers in the 1970's decided to investigate the fundamental assumption, that teachers affect learning, through the basic scientific techniques of observation and description. The resulting line of research has generally been referred to as "teacher effectiveness research" (Medley, 1980).

In these studies teachers and students in a variety of settings were observed for a period of time and their behaviors recorded. Students then took standardized tests at the end of the school year. From these observational records, teacher behaviors which related to student learning as measured by these standardized tests were then identified. An operational definition of the "effective teacher" has emerged from this line of research. The "effective teacher" is the teacher whose classes regularly score higher on standardized achievement tests than do classes of other teachers of similar students after entering differences among classes are statistically removed (Brophy & Evertson, Note 1, Good & Grouws, 1977). In the most recent stage of teacher effectiveness research, a few experimental studies have been and are currently being conducted to test various programs of staff development at the classroom practitioner level and to test whether the effects of these programs will still result in increased achievement scores (Good & Grouws, Note 2; Stallings, Needels, & Stayrook, Note 3). Significant results in these studies at last provide support for the prime assumption that teaching affects learning.

At the present some effective behaviors for some grades and some subjects and with some groups of students have been identified and tested. Certain dangers do exist for misuse and overgeneralization of the findings from teacher effectiveness research. Most studies produced correlational results and the researchers themselves have been careful to point out the limitations of this type of research. Consumers are cautioned not to assume causal relationships between teaching behaviors and achievement. Because the researchers were unable in most cases to control many variables that impact upon achievement, the findings cannot be used as recipes for successful teaching. Consumers have also been cautioned not to overgeneralize even these correlational relationships to new grade levels or subjects or for all types of students since some evidence, as well as common sense, suggests that these factors interact with effective behaviors (Brophy & Evertson, Note 1). Keeping these limitations in mind, attention will now be given to specific findings in the broadly-defined areas of learning environment, management of behavior, classroom instruction, and teaching style.

Criteria for selection of research studies

Studies included in this review meet the following criteria: (1) research methodologies can be verified as being procedurally rigorous and not open to interpretive question, (2) findings emerge from "real" classroom settings rather than laboratory settings, (3) findings are amenable to precise and clear translations to practitioners, and (4) the findings are ones which relate directly to demonstrable concerns and/or problems of teachers and teacher educators (Griffin, Note 4). Recognized experts in the field were also consulted and their recommendations of studies which meet these criteria considered.

Descriptions of selected studies

Three sets of major research efforts provide most of the information reported in this synthesis. The major topics of interest in one group of studies are management and organization of the classroom. The work of Jere Brophy and Carolyn Evertson on the Correlates of Effective Teaching Project began with correlational studies in the second and third grades. Other studies based upon their work eventually moved into other grades and subjects, including an experimental study in reading at the first grade level and a descriptive study in math and English at the junior high level.

The second set of studies which began with the work of Tom Good and Douglas Grouws on the Missouri Mathematics Effectiveness Project are

Table 1
Descriptions of selected studies of research on teaching

Researchers	Date of Publication of Findings	Grade	Content	Criterion Measures	Type of Study
1. Anderson, Evertson, and Brophy	1979	1	Reading	Metropolitan Achievement Test	experimental
2. Brophy and Evertson	1974	2,3		Metropolitan Achievement Test	correlational
3. Emmer, Evertson, and Anderson	1980	3		California Achievement Test	correlational
4. Evertson, Anderson, and Brophy	1978	7,8	Math English	California Achievement Test	correlational
5. Evertson, Emmer, and Brophy	1980	7,8	Math	content test (experimenter constructed)	correlational
6. Good and Grouws	1977	4	Math	Iowa Test of Basic Skills	correlational
7. Good and Grouws	1979	4	Math	Science Research Associates Achievement Test, content test (experimenter constructed)	experimental study I
8. Good and Grouws	1981a	6	Math	SRA Achievement Test, problem-solving test	experimental study II
9. Good and Grouws	1981b	8,9	Math	SRA Achievement Test, problem-solving test (experimenter constructed)	experimental study III
10. McDonald and Elias	1976	2,5	Reading Math	California Achievement Test	evaluation
11. Soar and Soar	1972	K,1		Metropolitan Readiness Test Early Childhood Inventory Preschool Inventory	evaluation

Researchers	Date of Publication of Findings	Grade	Content	Criterion Measures	Type of Study
12. Stallings and Kaskowitz	1974	1,3	Reading Math	Raven Problem-Solving Test Pupil Responsibility (IAR)	evaluation
13. Stallings	1978	7-12	Reading	California Test Basic Skills	correlational
14. Stallings, Needels, and Stayrook	1979	7-12	Reading	SRI adaption of California Achievement Test	experimental

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correlational studies of teachers and students in third and fourth grade mathematics. Later, experimental studies based on these findings were conducted in sixth, eighth, and ninth grade math. Major emphasis in these studies has been on systematic instruction.

The third set of studies began with the work of Jane Stallings on the Follow Through evaluation of the Planned Variation programs. Data for the correlational study were collected for reading and math in grades 1 and 3. These findings served as a basis for extending research into the teaching of basic reading skills in grades 7-12. Both a correlational study and an experimental study were conducted at this level. The emphasis in these studies has been on a program of effective instruction in reading skills.

Other studies have contributed in some way to this synthesis. The work on the Follow Through evaluation in Florida by Robert Soar and Ruth Soar and the work by McDonald and Elias on the Beginning Teacher Evaluation Study contribute some important findings.

Caution on variable names. Due to the problems posed when various studies coin their own operational definitions for variables, some caution is advised in interpreting this compilation of findings. Efforts have been made to examine original coding and observation instruments in order to determine exactly what behaviors comprised a variable. In some cases, inferences were made which may, of course, be in error. The reader will notice that variable terms or descriptions may not be exactly those stated in an original report. This occurs because effort was made to reduce the multitude of variables to a more manageable number by combining categories which appeared identical or very similar but carried different labels across different studies.

Another problem involves the indication of variable significance in the tables prepared for this synthesis. For instance, in some cases researchers on the first study in a set found significant relationships between a particular variable and student achievement. This relationship is noted in this synthesis in the appropriate table. In the next study of the set, researchers may have designed an experimental treatment based on those significant findings. It was felt that if that treatment was significant in increasing achievement, then the variable should again be indicated as significant on the appropriate table even if the researcher did not explicitly state that it was so in his report. The experimental study, in effect, added supportive evidence for the significance of that variable.

Selected findings on the learning environment

One area of teacher effectiveness research producing some of the most consistent findings has been research on the learning environment. Each study included in this review found positive relationships between classrooms broadly described as "work-," "task-" or "academically-oriented" and student achievement gains (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Evertson, Anderson, & Brophy, Note 5; Evertson, Emmer, & Brophy, Note 6; Good & Grouws, 1979; Good & Grouws, Note 7; Stallings & Kaskowitz, Note 8; Stallings, Note 9; Stallings, Needels, & Stayrook, Note 10). The terms, "work-," "task-," or "academically-oriented," usually describe classrooms where teachers expect and require students to pay attention, to work persistently toward completion of assignments, to exhibit cooperative attitudes, and, in general, to concentrate on academic activities rather than socializing. The amount of time allocated to academic tasks has been significantly related to student achievement in several studies (Evertson, Anderson, & Brophy, Note 5; McDonald & Elias, Note 11).

This general description is composed of the collection of specific teacher behaviors found separately in different projects. These behaviors

Table 2. Selected variables from research on teaching related to the learning environment

	A E B	B E	E E A	E A B	E E B	G G 77	G G 79	G G 81a	G G 81b	S S	S K	S	S N S
Work-oriented atmosphere (task-oriented or academic focus)		+	+	+	+	+	+	(+)			+	+	+
1. allocates time for academics				+		+							
2. has high achievement expectations		+				+							
3. assumes role of instructional leader		+	+			+	+	(+)				+	+
4. assumes personal responsibility for learning		+	+										
5. communicates expected behaviors and attitudes		+	+			+							
Warm, supportive environment		+L[1]	+	+L		+	+	(+)				+	+
6. praises		+L		+	+	-					+		
7. displays confidence and enthusiasm				+									
8. accepts student contributions				+		+							
9. gives specific praise	+	+H[2]											
10. has individual, private contacts with pupils				+									
11. practices positive affect		+L			+								
12. engages in positive interactions												+	
13. allows autonomy		+H											
14. has orderly classroom						+	+	(+)					

[1] Low Ability

[2] High Ability

include having "high achievement expectations" for students regardless of their entering ability levels (Brophy & Evertson, Note 1; Good & Grouws, 1977), assuming the role of "instructional leader," taking personal "responsibility for students' learning" (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Good & Grouws, 1977), and "communicating expected behaviors and attitudes" explicitly to students (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980).

Another broad variable, "a warm, supportive environment," was also consistently found to be positively related to student achievement in most of the studies reviewed here (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Evertson, Anderson, & Brophy, Note 5; Good & Grouws, 1979; Stallings, Needels, & Stayrook, Note 10). To achieve this warm, supportive environment, some teachers "praise" students frequently when praise is deserved, "respect student contributions" to class (Evertson, Anderson, & Brophy, Note 5), and provide "specific praise" which is offered in an appropriate manner (Anderson, Evertson, & Brophy, 1979). Effective teachers are generally confident and enthusiastic (Evertson, Anderson, & Brophy, Note 5). Having a warm, supportive environment is apparently more beneficial for low socioeconomic status (SES) students who respond better to more "individual, private contacts" with the teacher (Brophy & Evertson, Note 1; Evertson, Anderson, & Brophy, Note 5) and to more positive "teacher affect" in general (Brophy & Evertson, Note 1). Stallings (Note 9) reports significant positive relationships between "all positive interactions" and student achievement and significant negative relations between "all negative interactions" and student achievement. Students of higher abilities can benefit from learning situations where the teacher allows them some "autonomy" (Brophy & Evertson, Note 1). Most students regardless of ability level apparently benefit from teachers who maintain a basically "orderly classroom" (Good & Grouws, 1977; Good & Grouws, 1979) and do not allow a prevalence of "social" conversation (Stallings, Needels, & Stayrook, Note 10). The optimal limits for social conversation and creative disorder have yet to be established.

In summary, teachers who establish both a task- or work-oriented atmosphere in the classroom and a warm, supportive environment for their students are providing those students with a successful learning environment.

Selected findings on management of behavior

The findings related to management of behavior are organized here into those teaching behaviors that concern administration of the classroom, prevention of misbehavior, and reaction to misbehavior. The studies examined here essentially agree with Kounin (1970) that effective teachers actively seek to prevent misbehavior through anticipation of problems and planning to avoid those problems rather than waiting for misbehavior to occur and then disciplining the students.

Classroom administration

In the area of classroom administration the effective teacher is described as being "well-organized" (Stallings, Needels, and Stayrook, Note 10). Evidence that the teacher is well-organized comes from several observable behaviors. These include having "clear rules and procedures" which will probably be written and may be posted for students to read (Emmer, Evertson, & Anderson, 1980). Rules and procedures are so important to organization that they may be actually taught to the students using generally recognized principles of instruction where the teacher introduces the rules, gives a rationale for the rules, demonstrates and gives examples, monitors as the students practice the rule, provides feedback, and reteaches, if

Table 3. Selected variables from research on teaching related to management of behavior

	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81$_a$	GG 81$_b$	SS	SK	S PI	SNS PII
Classroom Administration													
1. is well-organized				+M[1]								+	+
2. has clear rules and procedures			+										
3. has written rules			+										
4. instructs pupils in rules and procedures			+										
5. begins class promptly			+										+
6. moves students through transition quickly and smoothly		+L[2]			+								
7. has materials ready			+										
8. has classroom arranged for ease of movement and visibility			+										
Prevention of Misbehavior													
9. is actively involved with students or actively instructing			+	+M	+							+	+
10. holds students accountable for behavior and successfully completed assignment			+	+M			+	(+)					
11. monitors classroom		+	+	+M									
12. signals appropriate behavior			+										
13. establishes eye contact			+										
14. uses a variety of rewards			+										
Reaction to Misbehavior													
15. responds quickly to misbehavior			+	+L E[3]	+							+	
16. corrects specific student	+	+H[4]	+										
17. cites specific rules			+										
18. consistency in enforcement					+								
19. use of milder, informative punishment		+											

[1] Math

[2] Low Ability

[3] English

[4] High Ability

necessary (Emmer, Evertson, & Anderson, 1980). Effective teachers are able to establish routines and procedures to guide and regulate pupil behaviors while still maintaining a desirable degree of flexibility in the classroom. Rules and procedures are used to reduce the complexity of the classroom for both students and teachers, not hamper the teacher's decision-making process during class.

When the time for class arrives, effective teachers treat that time as a valuable resource. These teachers begin class promptly and move students from one activity to another smoothly and quickly (Evertson, Emmer, & Brophy, Note 6; Brophy & Evertson, Note 1). To encourage this ease of transition, classrooms are arranged so that students may move to new areas or pick up needed supplies with as little disruption as possible to other students or the teacher. Effective teachers also take into account the need to see and be seen during all class activities. As a consequence, furniture is arranged so that all students can see blackboards, assignment sheets, or other areas used by the teacher when communicating with the class and the teacher can see all students most of the time (Emmer, Evertson, & Anderson, 1980).

In summary, the effective teacher-administrator decides which behaviors and attitudes are acceptable, designs classroom procedures and rules to foster those behaviors and attitudes, and actually teaches rules and procedures in an instructional setting. Students are surrounded by the attitude and supporting behaviors that indicate time is precious and not to be wasted by disruptions.

Prevention of Misbehaviors

The general behavior used by effective teachers to prevent student misbehavior is to be actively involved with the students for most of the classtime (Brophy & Evertson, Note 1; Evertson, Anderson, & Brophy, Note 5; Good & Grouws, 1977; Good & Grouws, 1979; Stallings, Note 9; Stallings, Needels, & Stayrook, Note 10). Effective teachers do not begin class with roll, give a short explanation of the day's lesson, make a long individual reading or seatwork assignment, and then settle down at the desk to grade papers or make lesson plans. Effective teachers provide active instruction (described in more detail in a later section) to much of the class and limit the time spent by students in seatwork (Evertson, Anderson, & Brophy, Note 5). When effective teachers do make seatwork assignments, students are reminded that they are accountable both for their behavior and their assignment (Emmer, Evertson, & Anderson, 1980; Evertson, Anderson, & Brophy, Note 6; Good & Grouws, 1979). The effective teachers monitor the classroom carefully to check for both success in the task and appropriate behavior (Anderson, Evertson, & Brophy, 1979; Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Evertson, Emmer, & Brophy, Note 6; Good & Grouws, 1979; Stallings, Needels, & Stayrook, Note 10). However, they do not become involved with individuals to the exclusion of the rest of the classroom (Stallings, Needels, & Stayrook, Note 10).

Effective teachers tend to respond with certain behaviors when they spot problems beginning to develop. Emmer, Evertson, and Anderson (1980) found that effective teachers may "signal the appropriate behavior" by using a previously taught signal or sign to warn students when they are getting off-task, "establish eye contact" with potentially disruptive students, and use a "variety of rewards" to provide positive reinforcement to those students who successfully comply with rules and procedures. In summary, effective teachers try to prevent misbehavior by maintaining active involvement with their students even during seatwork, and reacting to problem situations as they are developing.

Reaction to Misbehavior

Despite the best classroom organization and efforts in prevention, misbehavior by students sometimes occurs. When this happens, effective teachers are quick to respond. This is an important behavior since some styles of discipline suggest ignoring misbehavior. Effective teachers not only react, they usually stop misbehavior quickly (Emmer, Evertson, & Anderson, 1980; Evertson, Emmer, & Brophy, Note 6; Stallings, Note 9).

The effective teachers name specific students rather than refer to the whole class when they act to stop misbehavior. They cite specific rules which are being broken rather than making general requests for order (Emmer, Evertson, & Anderson, 1980). When a rule is broken, effective teachers are "consistent" in enforcement (Evertson, Emmer, & Brophy, Note 6) and tend to use "milder, more informative" forms of punishment (Brophy & Evertson, Note 1). In summary, the effective teachers react to misbehavior promptly, focus on specific students and rules, and enforce rules consistently.

Selected findings in classroom instruction

The findings related to classroom instruction are organized into teaching behaviors that prepare students for the lesson, present the content of lesson, enable students to practice after the presentation, and evaluate student learning. Most of the studies examined for this synthesis support what Good and Grouws (1979) have called a "system of instruction."

Table 4. Selected variables from research on teaching related to classroom instruction

Preparing Students for the Lesson	A E B	B E	E E A	E A B	E E B	G G 77	G G 79	G G 81_a	G G 81_b	S S	S K	S PI	S I. S P
"Systematic Instruction"						+	+				+		
1. secures students' attention before beginning		+											
2. states objectives			+										
3. gives/seeks rationale for lesson	+		+				+	(+)					
4. reviews previous content							+	(+)					
Teacher Presentation of Lesson													
5. actively presents new material				+M[1]		+	+				+	+	+
6. provides clear presentations		+	+		+	+	+						
7. presents material in small steps		+											
8. engages in discussion/recitation				+M							+		+
9. maintains brisk pace		-L[2] +H[3]		+M		+							
10. maintains active participation by students in academics	+	+	+		+	+					+	+	
11. asks questions that students answer with higher degree of success		+											
12. varies cognitive level of questions		+H		+M	+								
13. has highly focused learning tasks										+C[4]			
14. has moderately focused learning tasks										+AC[5]			
15. conducts controlled practice over new material	+	+					+	(+)					

[1] Math

[2] Low Ability

[3] High Ability

[4] Concrete tasks

[5] Abstract/Complex tasks

Table 4. Continued

	A E B	B E	E E A	E A B	E E B	G G 77	G G 79	G G 81$_a$	G G 81$_b$	S S	S K	S PI	S N S PII
16. monitors responses for correctness	+	+					+	(+)					
17. provides feedback													
positive feedback											+	+	
negative feedback											+	-	
academic praise				+									
nonevaluative feedback	+	+			+	+					+	+M	+
supportive correction	+	-L									+	+M	+
process feedback	+					+	+						
18. checks for understanding of assignment	+	+L											
Student Practice After Presentation													
19. gives common seatwork assignments						+	+	(+)					
20. monitors seatwork	+	+L	+		+		+	(+)					+
21. works with individuals				+L E[6]									-
22. holds students accountable for assignment			+				+	(+)					
23. assigns homework		+H			+	+	+	(+)					
Evaluation of Student Learning													
24. holds students accountable for reasonable work standards			+										
25. checks homework						+	+	(+)					+
26. gives frequent quizzes												+L	+

[6] English

Preparing students for the lesson

Part of a systematic instruction pattern involves preparing students for a new lesson. Effective teachers begin with the basics, securing students' attention before proceeding with the lesson (Brophy & Evertson, Note 1). From this point effective teachers use one of several strategies including "stating objectives of the lesson clearly" and explicitly for students (Emmer, Evertson, & Anderson, 1980), giving a rationale (Anderson, Evertson, & Brophy, 1979; Emmer, Evertson, & Anderson, 1980; Good & Grouws, 1979), or "reviewing" content of previous lessons needed for the upcoming presentation (Good & Grouws, 1979). These strategies apparently motivate the students toward academic achievement and orient the students to a particular subject at a particular time. In summary, the effective teacher makes sure the students are paying attention and have some idea, not only of what they are going to do, but why they are going to do it.

Teacher presentation of the lesson

When effective teachers conduct a lesson over new material, they tend to take an active part in presenting that material (Evertson, Anderson, & Brophy, Note 5; Stallings, Note 9; Good & Grouws, 1979). Effective teachers are "clear in their presentation" of content (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Evertson, Emmer, & Brophy, Note 5; Good & Grouws, 1977; Good & Grouws, 1979) and present that material in small steps, especially when they are teaching low ability students (Brophy & Evertson, Note 1). Often the teacher presentation involves teacher-led "discussion" (Evertson, Anderson, & Brophy, Note 5; Stallings & Kaskowitz, Note 8; Stallings, Needels, & Stayrook, Note 10) and "pupil recitation" (Stallings & Kaskowitz, Note 8) rather than lengthy lecturing by the teacher. Apparently the effective teacher attempts to expose students to the new material, move along at a reasonably "brisk pace," and maintain "active participation by the students" simultaneously (Anderson, Evertson, & Brophy, 1979; Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980; Evertson, Emmer, & Brophy, Note 6; Good & Grouws, 1977; Stallings, Note 9). During discussion/recitation, effective teachers ask questions that students can answer with a "high degree of success" (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980). Effective teachers "vary the cognitive level" of the question according to the ability level of the students (Brophy & Evertson, Note 1; Evertson, Emmer, & Brophy, 1980) or the instructional goal. Soar and Soar (1972) found that students profited from "highly focused learning tasks" when the measure of success was concrete learning. However, when the measure of success was abstract, complex learning, students profited more from "moderately focused learning tasks" and "information giving and receiving" between teacher and students.

After the presentation of new material the effective teachers often conduct some form of "controlled practice" over the new material with the whole class (Anderson, Evertson, & Brophy, 1979; Brophy & Evertson, Note 1; Good & Grouws, 1979; Stallings, Needels, & Stayrook, Note 10). The teachers "monitor student responses" carefully to be sure that students are performing successfully. While students practice, the effective teachers can "provide feedback" on student performance. Stallings and Kaskowitz (Note 8) found that both "positive feedback" and "negative feedback" were positively related to achievement in elementary grades but in secondary basic skills classes "negative feedback" was negatively related (Stallings, Note 9). In other studies feedback took the form of "praise" for academic performance (Evertson, Anderson, & Brophy, Note 5) or simple "nonevaluative feedback" (Good & Grouws, 1977). In the case of incorrect responses by students effective teachers provide "supportive" but corrective feedback (Anderson, Evertson, & Brophy, 1979; Stallings & Kaskowitz, Note 8; Stallings, Note 9; Stallings, Needels, & Stayrook, Note 10) or provide "process feedback" showing the student how to achieve the correct answer (Good & Grouws, 1977). The use of controlled practice during or after the presentation allows the effective teacher to catch errors early before students begin work on their own (Anderson, Evertson, & Brophy, 1979; Brophy & Evertson, Note 1). By attention to student understanding of both content and teacher directions at this point in the lesson, effective teachers increase the opportunities for students to be successful in subsequent seatwork and homework (Brophy & Evertson, Note 1; Good & Grouws, 1979). In summary, effective teachers actively lead instruction while maintaining both student participation and student expectations for success. The effective teachers also have students practice new material while the teacher checks for student understanding of both content and directions before the teacher allows students to begin individual seatwork.

Student practice after the presentation

When the effective teacher is reasonably satisfied that students understand the content, students are given a common seatwork assignment for a small portion of the class period (Evertson, Anderson, & Brophy, Note 5; Good & Grouws, 1979; Stallings, Needels, & Stayrook, Note 10). During seatwork the effective teachers continue to monitor the class and physically move about the room (Good & Grouws, 1979). They do not take seatwork as an opportunity to catch up on grading or next week's lesson plans (Good & Grouws, 1977). If a few students are still confused, the effective teacher gets the class started on the assignment and then works with individuals. Students are held "accountable" for both their assignment and their use of

Table 5. Selected variables from research on teaching related to teaching style

	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81_a	GG 81_b	SS	SK	S PI	SNS PII
Interaction With Students													
1. discusses lesson/questions with students (academic)				$+M^1$							+		+
2. interacts with individuals during lesson		+		+M									
3. calls on specific students		+										+	
4. calls on students in a systematic manner		+											
5. accepts volunteers				+M		+							
6. accepts "call outs"		-H		$-H^2$ $+L^3$									
7. waits for some response				+L M								+	+
8. probes, rephrases, questions, prompts		+L											
9. provides answer to question		+											
10. accepts substance of response		+											
11. maintains brisk pace during lesson		-L +H		+M		+							
1... varies question levels				+M									
13. asks process questions				+M	+								
14. stresses students' understanding of meaning						+	+	(+)					
15. has high rates of success for student answers		+											
Organizing Instructional Activities													
1. relates content to student interest and background			+										
2. follows prescribed curriculum		+H											
3. moves briskly through curriculum				+M									

[1] Math

[2] High Ability

[3] Low Ability

Table 5. Continued

	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81_a	GG 81_b	SS	SK	S PI	SNS PII
4. relies on workbooks/textbooks											+	+	
5. uses materials matched to ability levels of students											+		
6. uses large group or whole class instruction							+	(+)				+	+
7. uses small group instruction											+	+L	+
8. has students read aloud												+L	+
9. ability grouped class												+L	

time during seatwork (Good & Grouws, 1979; Note 7). Effective teachers do not usually make long seatwork assignments or long "silent" or "leisure" reading assignments (Stallings, Needels, & Stayrook, Note 10), but they do regularly assign some small amount of "homework" (Brophy & Evertson, Note 1; Evertson, Emmer, & Brophy, Note 6; Good & Grouws, 1977; 1979; Note 7) that provides students the opportunity for further drill and practice over the lesson. In summary, effective teachers provide individual practice opportunities, but limit the time students work individually and continue to stay actively involved with the class.

Evaluation of student learning

Although little attention has been given to this aspect of effective teaching, some few findings provide a partial description of effective teaching behaviors related to evaluation. Effective teachers not only assign homework but also hold students accountable for "reasonable standards of work" (Emmer, Evertson, & Anderson, 1980). The effective teachers often "check homework" orally during class and give "frequent quizzes" on the content (Stallings, Needels, & Stayrook, Note 10). Aside from these few findings, the important areas of evaluation of student learning by effective teachers remains undescribed.

The teacher who is an effective instructor gets student attention before the lesson, actively presents new material, has students practice until there is reasonable assurance they will be successful, assigns homework, and holds students accountable for both the assignment and use of class time.

Selected findings on teaching style

The findings on teaching behaviors related to teaching style are organized into teacher interactions with students during instruction and organization of instructional activities. Findings on teaching style again reflect active involvement by the teacher as well as involvement by students.

Interactions with students

Effective teachers provide opportunities during instruction for extensive discussion or "questioning." This is one sanctioned way teachers allow students to receive teachers' attention (Evertson, Anderson, & Brophy, Note 5). Teachers may initiate participation by one of several methods - "calling on specific students in a systematic pattern" (Brophy & Evertson, Note 1), accepting "volunteers" (Evertson, Anderson, & Brophy, Note 5; Good & Grouws, 1977) or accepting "call outs" in low ability classes (Evertson, Anderson, & Brophy, Note 5) or middle ability classes (Good & Grouws, 1977). Effective teachers also "wait for some response" from students, especially low ability students (Brophy & Evertson, Note 1). If the student gives an incorrect response to the question, effective teachers may "probe," "rephrase," "prompt" (Evertson, Anderson, & Brophy, Note 5; Stallings, Note 9; Stallings, Needels, & Stayrook, Note 10) or "provide the correct answer" to the question (Brophy & Evertson, Note 1). If the student gives a partially correct response, the effective teacher "accepts the substance" of the correct parts of the answer, provides some feedback to the student, and moves the lesson along (Brophy & Evertson, Note 1). These teacher responses to student answers help maintain a "brisk pace" in class discussions (Evertson, Anderson, & Brophy, Note 5; Good & Grouws, 1979). A brisk pace is especially helpful to classes with higher ability students (Brophy & Evertson, Note 1). Effective teachers may ask questions of varying cognitive levels from simple, straightforward requests for verbatim recall to questions requiring students to state an opinion or process questions asking students to describe how they arrived at an answer (Evertson, Anderson, & Brophy, Note

5; Evertson, Emmer, & Brophy, Note 6; Good & Grouws, 1977). Effective teachers stress students' understanding of the meaning of the content in question rather than the form of the students' responses (Good & Grouws, 1977; 1979). When questioning students over the lesson, effective teachers ask questions which students can answer at high rates of success, 70% for high ability students and 80% for lower ability students (Brophy & Evertson, Note 1). In summary, effective teachers encourage interactions where students are expected to participate and to be challenged but still be successful.

Organized instructional activities

The effective teacher organizes instructional activities to provide students with activities that are interesting and meaningful and to use grouping patterns which fit the task. The effective teacher recognizes the basic importance of motivation for students. One teaching strategy associated with motivation is "relating class content to the interests of the students" (Emmer, Evertson, & Anderson, 1980). Effective teachers "follow prescribed curriculum" (Brophy & Evertson, Note 1), move briskly through that curriculum, especially with high ability students (Evertson, Anderson, & Brophy, Note 5), and rely heavily on "workbooks and textbooks" (Stallings & Kaskowitz, Note 8; Stallings, Note 9). In appropriate situations effective teachers use "special materials" which are matched to the ability level of the students, especially with low ability students (Brophy & Evertson, Note 1; Emmer, Evertson, & Anderson, 1980).

Most studies found strong positive associations between certain grouping patterns and student achievement. "Whole class" or "large group instruction" is the most prominent grouping pattern (Good & Grouws, 1979; Stallings & Kaskowitz, Note 8). In the report on Phase I of a project designed to teach basic skills in secondary schools, Stallings (Note 9) reports positive relationships for "small group instruction" and students taking turns "reading aloud." Strong results related to grouping were also found for ability grouping by Stallings, Needels, & Stayrook (Note 10). Here low ability students did better in homogeneously grouped classes where instruction was at a slower pace but fast enough to maintain interest.

In summary, effective teachers carefully organize instructional activities to both motivate students and provide appropriate practice in the lesson. They also teach most lessons to the whole class and use small groups only for particular instructional purposes or subjects.

Summary

This background of research on teaching from large-scale, classroom-based studies provides a profile of one definition of an "effective teacher." The effective teachers in these studies tended to establish a work-orientation in the classroom while maintaining a warm, supportive environment. They also are well-organized and place much emphasis on management of the classroom in order to optimize the productive use of time. During class effective teachers stay actively involved with students to prevent misbehavior and intervene promptly to stop misbehavior. When presenting new material many effective teachers use a systematic instruction plan which includes gaining students' attention before beginning the lesson, making a clear presentation, allowing students to practice new skills, monitoring and providing feedback, assigning individual seatwork, and evaluating students' responses. Effective teachers generally interact with the whole class during classtime and move students through discussions at a brisk pace with a high level of student success.

From these results teacher educators can develop programs to train persons in the particular skills that have been demonstrated by effective teachers. These research findings support many common teaching practices and answer criticisms that educational research has no relationship to real classroom problems and situations. While there are other conceptions of good teaching which view teaching as an art or as a job requiring certain philosophical or psychological orientations, the purpose of this review was only concerned with recent findings in classroom-based research and not the assumptions underlying this particular approach to the study of teaching. At present if school emphasis is on achievement in basic skills as measured by standardized achievement tests, then this research provides teachers with behaviors that facilitate increases in achievement and still allow adaptation to fit particular classroom needs. Finally, these findings are guidelines for increased effectiveness and are not intended to be foolproof recipes for teaching.

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BARNES TEACHER OBSERVATION INSTRUMENT

H.O. #A-4

TEACHER BEHAVIORS — FREQUENCY

A. Planning and preparation

1. t. allocates time per academics ________
2. t. posts assignments for day ________
3. t. posts assignments for week ________
4. t. provides calendar w/ass'mts ________

B. Presentation

1. t. gives/seeks rationale for lesson ________
2. t. presents new info. or content ________
3. t. refers to previous lesson content ________
4. t. uses materials ________
    - a. kinds ________
    - b. supply ________
    - c. corrections made ________
5. t. divides complex tasks into steps ________
6. t. gives demonstration ________
7. t. uses concrete examples ________
8. t. makes comparisons ________
9. t. points out patterns ________
10. t. uses ex. related to Ss interests ________
11. t. gives directions ________
12. t. relates new activity to previous or future activity ________

C. Interactions

1. t. asks questions where Ss provide "the" answer (Product ques.) ________
    - a. correct ________
    - b. incorrect ________
    - c. no answer ________
2. t. asks questions where Ss provide "how" and "why" (Process ques.) ________
    - a. correct ________
    - b. incorrect ________
    - c. no answer ________
3. t. calls on Ss ________
    - a. non-volunteers ________
    - b. in predetermined pattern ________
    - c. accepts callouts ________
    - d. volunteers - hands up ________
4. t. waits for Ss to respond to ques. ________
5. t. explains "how" or "why" the ans. was obtained (process explanation) ________
6. t. accepts academic comments by Ss during lesson ________
7. t. accepts content questions during lesson ________
8. t. accepts procedure questions during lesson ________
9. t. answers content questions asked by Ss after instruction ________
10. t. answers procedure questions asked by Ss after direction-giving ________

D. Practice

1. t. conducts practice over new (or old) material in whole group ________
2. t. checks Ss responses for correctness ________
3. t. provides feedback ________
4. t. moves around classroom ________
5. t. reminds Ss that they should be working or participating ________
6. t. reminds Ss that work will be checked ________

E. Seatwork

1. t. watches class after making ass'mt ________
2. t. reacts to Ss not complying with assignment ________
3. t. circulates as Ss work ________
4. t. scans seatwork as Ss work ________
5. t. gives individuals assistance ________
6. t. assigns extra credit work to more able Ss ________
7. t. assigns work using higher cognitive levels (analysis or above) ________

F. Holds Ss responsible for ass'mts

1. t. makes daily homework ass'mts. ________
2. t. tells Ss their work will be checked ________
3. t. tells Ss they must complete ass'mt ________
4. t. makes ass'mts using procedure ________
5. t. has Ss record ass'mts in designated place ________
6. t. requires Ss to keep notebooks to store assignments ________
7. t. collects assignments daily ________
8. t. checks/grades papers ________
9. t. returns graded work to Ss ________
10. t. communicates make up work to Ss ________
11. t. relates Ss work to grades ________

TEACHER BEHAVIORS — FREQUENCY

G. Organizes classroom

1. t. allocates time to teach rules/procedures ________
2. t. states, posts, or write rules/procedures ________

H. Presentation of rules/procedures

1. t. provides/seeks a rationale for rules and procedures ________
2. t. communicates to Ss desired attitude ________
3. t. communicates to Ss desired behavior ________
4. t. introduces groups of rules and procedures at different times ________
5. t. explains rules and procedures in concrete terms ________
6. t. demonstrates rules & procedures ________
7. t. breaks complex r&p into steps ________
8. t. explains cues associated w/r&P ________
9. t. demonstrates cues ________
10. t. has Ss practice r&P ________
11. t. gives feedback on Ss performance ________
12. t. reteaches r&p ________
13. t. communicates consequences to Ss ________

I. Holds Ss responsible for behavior

1. t. observes Ss behavior ________

t. uses r&p for use of materials/areas ________

3. storing Ss possessions ________
4. using learning centers ________
5. Ss use of shared materials, cabinets ________
6. Ss use of T's desk and area ________
7. Ss use of drinking fountain/sink ________
8. Ss use of pencil sharpener ________
9. Ss use of bathrooms ________
10. Ss use of out-of-class bathrooms, drinking fountains, office, lib., resource room, health office ________
11. passing out books and supplies ________
12. telling Ss which materials to bring to groups ________
13. playground ________
14. lunchroom ________

t. uses r&p for discussion

15. S participation in class disc. ________
16. talk among Ss during academic presentation ________
17. talk among Ss during seatwork ________
18. talk among Ss during freetime ________

t. uses r&p for movement

19. Ss lining up to leave room ________
20. Ss coming and going to other areas of school ________
21. Ss movement into and out of groups ________
22. Ss leaving seats during academic presentation ________
23. Ss leaving seats during seatwork ________
24. Ss leaving seats during free time ________

t. uses r&p for assignments

25. Ss getting t. attention for help ________
26. Ss turning work ________
27. handing back assignments ________
28. Ss making up work ________
29. Ss activities after seatwork is finished ________

t. uses r&p for

30. selecting Ss for helpers ________
31. using Ss helpers ________
32. t. uses r&p for Ss conduct during interruptions and delays ________
33. t. uses r&p for cueing Ss attention ________

J. Reactions to Ss behavior

1. t. reacts to Ss not following r&p ________
2. t. reacts to Ss following r&p ________
3. t. uses consequences for inappropriate behavior ________
4. t. uses consequences for appropriate behavior ________
5. t. reacts to undesired attitudes ________
6. t. reacts to desired attitudes ________
7. t. uses consequences for undesired attitudes ________
8. t. uses consequences for desired attitudes ________

BEST COPY AVAILABLE

Desired Teacher Behaviors

Planning and preparation

- teacher allocates time per academics
- teacher posts assignments for day
- teacher posts assignments for week
- teacher provides calendar with assignments

Presentation of content

- teacher gives or seeks rationale for lesson
- teacher presents new information or content
- teacher refers to previous lesson content
- teacher uses materials
- teacher divides, compiles tasks into steps
- teacher gives demonstration
- teacher uses concrete examples
- teacher makes comparisons
- teacher points out patterns
- teacher uses examples related to students' interests
- teacher gives directions
- teacher relates new activity to previous or future activity

Interactions

- teacher asks questions where students provide "the" answer (product questions): (a) correct, (b) incorrect
- teacher calls on students
    - non-volunteers
    - in predetermined pattern
    - accepts callouts

- teacher waits for students to respond to questions
- teacher explains "how" or "why" the answer was obtained (process explanation)
- teacher accepts academic comments by Ss during lesson
- teacher accepts content questions during lesson
- teacher accepts procedure questions during lesson
- teacher answers content questions asked by Ss after instruction
- teacher answers procedure questions asked by Ss after direction-giving

Practice

- teacher conducts practice over new (or old) materials in whole group
- teacher checks students' responses for correctness
- teacher provides feedback
- teacher moves around classroom
- teacher reminds students that they should be working or participating
- teacher reminds students that work will be checked

Seatwork

- teacher watches class after making assignment
- teacher reacts to students not complying with assignment
- teacher circulates as students work
- teacher scans seatwork as students work
- teacher gives individuals assistance
- teacher assigns extra credit work to more able students
- teacher assigns work using higher cognitive levels (analysis or above)

Holds students responsible for assignments

- teacher makes daily homework assignments
- teacher tells students their work will be checked
- teacher tells students they must complete assignment
- teacher makes assignments using procedure
- teacher has students record assignments in designated place
- teacher requires students to keep notebooks to store assignments
- teacher collects assignments daily
- teacher checks/grades papers
- teacher returns graded work to students
- teacher communicates make-up work to students
- teacher relates students' work to grades

Organizes classroom

- teacher allocates time to teach rules/procedures
- teacher states, posts, or writes rules/procedures

Presentation of rules/procedures

- teacher provides/seeks a rationale for rules and procedures
- teacher communicates to students desired attitude
- teacher communicates to students desired behavior
- teacher introduces groups of rules and procedures at different times
- teacher explains rules and procedures in concrete terms
- teacher demonstrates rules and procedures
- teacher breaks complex rules and procedures into steps
- teacher explains cues associated with rules and procedures
- teacher demonstrates cues
- teacher has students practice rules and procedures

- teacher gives feedback on students' performance
- teacher reteaches rules and procedures
- teacher communicates consequences to students

Holds students responsible for behavior

- teacher observes students' behavior
- teacher uses rules and procedures for use of materials/areas
    - storing students' possessions
    - using learning centers
    - students' use of shared materials, cabinet
    - students' use of teacher's desk and area
    - students' use of drinking fountain/sink
    - students' use of pencil sharpener
    - students' use of bathrooms
    - students' use of out-of-class bathrooms, drinking fountains, office, library, resource room, health office
    - passing out books and supplies
    - telling students which materials to bring to groups
    - playground
    - lunchroom
- teacher uses rules and procedures for discussion
    - student's participation in class discussions
    - talk among students during academic presentation
    - talk among students during seatwork
    - talk among students during free time
- teacher uses rules and procedures for movement
    - students lining up to leave room

    - students coming and going to other areas of school
    - students' movement into and out of groups
    - students leaving seats during academic presentation
    - students leaving seats during seatwork
    - students leaving seats during free time
- teacher uses rules and procedures for assignments
    - students getting teacher's attention for help
    - students turning in work
    - students handing back assignments
    - students making up work
    - student activities after seatwork is finished
- teacher uses rules and procedures for helpers
    - selecting students for helpers
    - using student helpers
- teacher uses rules and procedures for student conduct during interruption and delays
- teacher uses rules and procedures for cueing student attention

Reactions to students' behavior

- teacher reacts to students not following rules and procedures
- teacher reacts to students following rules and procedures
- teacher uses consequences for inappropriate behavior
- teacher uses consequences for appropriate behavior
- teacher reacts to undesired attitudes
- teacher reacts to desired attitudes
- teacher uses consequences for undesired attitudes
- teacher uses consequences for desired attitudes

Handouts A-6 (Missouri Mathematics Effectiveness Project), A-7-1 (Organizing and Managing the Elementary School Classroom), and A-7-2 (Organizing and Managing the Junior High Classroom may be ordered from the Research and Development Center, University of Texas, Austin.

H.O. #A-8

Staff Development Guide for Instructional Improvement

Research-Based Site Specific Plan

Research in Teacher Education
Research & Development Center for Teacher Education
The University of Texas at Austin

This planning workbook was initially designed to assist staff developers participating in the 1983 experimental CTP study to use research findings in planning specific interventions at their school sites. These plans focused on increasing teacher effectiveness, and ultimately, positive pupil outcomes. We believe this revision, based on two years of practitioner use, will further facilitate effective planning for interventions.

> "If....a project is applied uniformly or rigidly, it is unlikely that the new techniques will significantly or positively alter the teacher-student relationship. Therefore, the process that fosters effective implementation and teacher change is one that promotes each teacher's ability, capacity, and motivation to accomplish this unique tuning."

Federal Programs Supporting Educational Change, Vol. VIII: Implementing and Sustaining Innovations. The Rand Corporation, May 1978.

Describe site regularities:

District ______________________________

School ______________________________

Classroom ______________________________

List specific teaching behaviors which will be the focus of the plan:

List specific staff development strategies to increase teacher use of selected teaching behaviors:

Schedule staff development activities:

Date	Teaching behaviors	Staff development strategies	Resources

Provide for continuing support of teachers by scheduling opportunities for:

1. **teachers to interact with one another about teaching and schooling** ________

2. **peer observations and feedback** ________

Describe activities that promote directed reflection, analysis, and decision making by teachers:

List possible resources for "on-call" assistance to teachers:

Specific Teaching Behaviors

A. Planning & preparation

1. allocates time per academics
2. posts assignments for day
3. posts assignments for week
4. provides calendar with assignments

B. Presentation of content

1. gives/seeks rationale for lesson
2. presents new information or content
3. refers to previous lesson content
4. uses material
   variety
   adequate supply
   complete & correct
5. divides complex tasks into steps
6. gives demonstration
7. uses concrete examples
8. makes comparisons
9. points out patterns
10. uses examples related to students' interests
11. gives directions
12. relates new activity to previous or future activity

C. Interactions

1. asks questions where students provide "the" answer (product questions): (a) correct, (b) incorrect
2. asks questions where students provide "how" and "why" (process questions): (a) correct, (b) incorrect
3. calls on students
   non-volunteers
   in predetermined pattern
   accepts callouts
4. waits for students to respond to questions
5. explains "how" or "why" an answer was obtained (process explanation)
6. accepts academic comments by students during lesson
7. accepts content questions during lesson
8. accepts procedure questions during lesson
9. answers content questions asked by students after instruction
10. answers procedure questions asked by students after direction-giving

D. Practice

1. conducts practice over new materials in whole group
2. checks students' responses for correctness
3. provides feedback
4. moves around classroom
5. reminds students that they should be working or participating
6. reminds students that work will be checked

E. Seatwork

1. watches class after making assignment
2. reacts to students not complying with assignment
3. circulates as students work
4. scans seatwork as students work
5. gives individuals assistance
6. assigns extra credit work to more able students
7. assigns work using higher cognitive levels (analysis or above)

F. Holds students responsible for assignments

1. makes daily homework assignments
2. tells students their work will be checked
3. tells students they must complete assignment
4. makes assignments using procedure
5. has students record assignments in designated place
6. requires students to keep notebooks to store assignments
7. collects assignments daily
8. checks/grades papers
9. returns graded work to students
10. communicates make up work to students
11. relates student work to grades

G. Organizes classroom

1. allocates time to teach rules & procedures
2. states, posts, or writes rules & procedures

H. Presentation of rules & procedures

1. provides/seeks a rationale for rules & procedures
2. communicates to students desired attitude
3. communicates to students desired behavior
4. introduces groups of rules & procedures at different times
5. explains rules & procedures in concrete terms
6. demonstrates rules & procedures
7. breaks complex rules & procedures into steps
8. explains cues associated with rules & procedures
9. demonstrates cues
10. has students practice rules & procedures
11. gives feedback on students' performance
12. reteaches rules & procedures
13. communicates consequences to students
14. uses materials
    variety
    adequate supply
    complete & correct

I. Rules & procedures

1. observes students' behavior
2. uses rules & procedures for use of materials/areas
   - using learning centers
   - using shared materials, cabinets
   - using drinking fountain/sink
   - using pencil sharpener
   - using bathrooms
   - passing out books & supplies
3. rules & procedures for discussion
   - participating in class discussion
   - restricting talk among students during academic presentation
   - restricting talk among students during seatwork
   - talking among students during free time
4. rules & procedures for movement
   - moving into & out of groups
5. rules & procedures for assignments
   - getting teacher's attention for help
   - activities after seatwork is finished
6. uses rules & procedures for cueing students' attention

J. Reactions to student behavior

1. reacts to students not following rules & procedures
2. reacts to students following rules & procedures
3. uses consequences for inappropriate behavior
4. uses consequences for appropriate behavior

Staff Development Strategies

1. Focus on teacher behavior
2. Identify specific, concrete resources & available technical assistance
3. Provide teachers with opportunities to interact with one another about teaching & schooling
4. Provide teachers with opportunities to observe one another & to discuss what was observed
5. Provide teachers with opportunities to plan together
6. Provide teachers with opportunities to implement their plans
7. Diagnose school- & classroom-specific regularities
8. Diagnose individual stages of concern of teachers
9. Attend school & classroom regularities & teachers' concerns in formulating inservice activities
10. Include the building administrators in activities designed to help teachers be more effective
11. Work with teachers on adaptation of teaching strategies according to the characteristics of students, the classroom & the school
12. Provide in-classroom technical assistance (e.g., coaching) to teachers
13. Link teachers to technical assistance outside the immediate school environment & provide concrete resources
14. Provide teachers with feedback which is objective, concrete & focused
15. Provide consistent, ongoing assistance to teachers
16. Adapt staff development behavior according to personal & organizational characteristics of "users"
17. Use teacher time to deal with teacher problems, issues & concerns
18. Communicate expectations clearly & precisely
19. Interact with teachers in friendly & positive ways
20. Provide teachers with evidence that "teachers can make a difference" in pupil outcomes
21. Demonstrate knowledge of "effective" teaching as revealed by research
22. Engage teachers in problem identification, solution formulation & testing activities
23. Reflect upon the effects of his/her behavior & use that reflection as a basis for decisions about maintenance or modification of that behavior

OVERHEADS SESSION - A

Directions: Read the following vignette. Evaluate this staff developer's efforts. Ask yourself the following questions.

1. What do you see as Ms. Boggs' greatest need at this time?
2. Would you approach this situation in the same way? If so, how would your actions differ from Ms. Apples? If not, why not?

Vignette #1

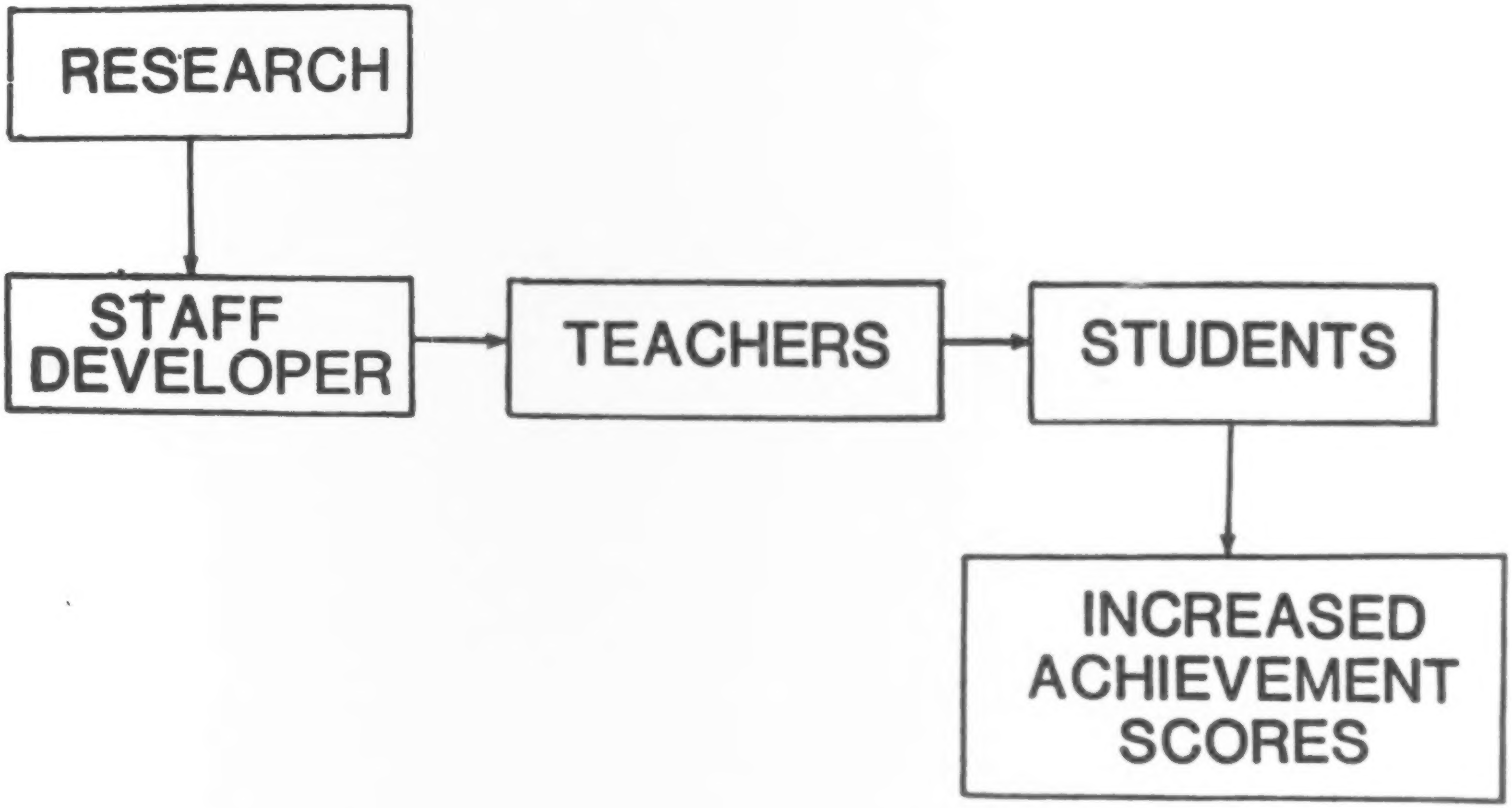
Ms. Boggs is a first-year teacher assigned to fifth grade. Ms. Apple, her staff developer, is observing her during Language Arts instruction. Her lesson focuses on how to write a research paper. The academic portion of the lesson seems well planned. As a part of the planned activities, students are required to go to different areas in the room to obtain paper, reference books, and handouts. Most students appear uncertain about where materials are located. Others spend half of the allotted academic time attempting to find materials.

Ms. Apple plans to meet with this teacher after class and share her objective notes from this observation.

CASE STUDY
MS. BOGGS

NEEDS:

MEANS:



RESEARCH

STAFF DEVELOPER

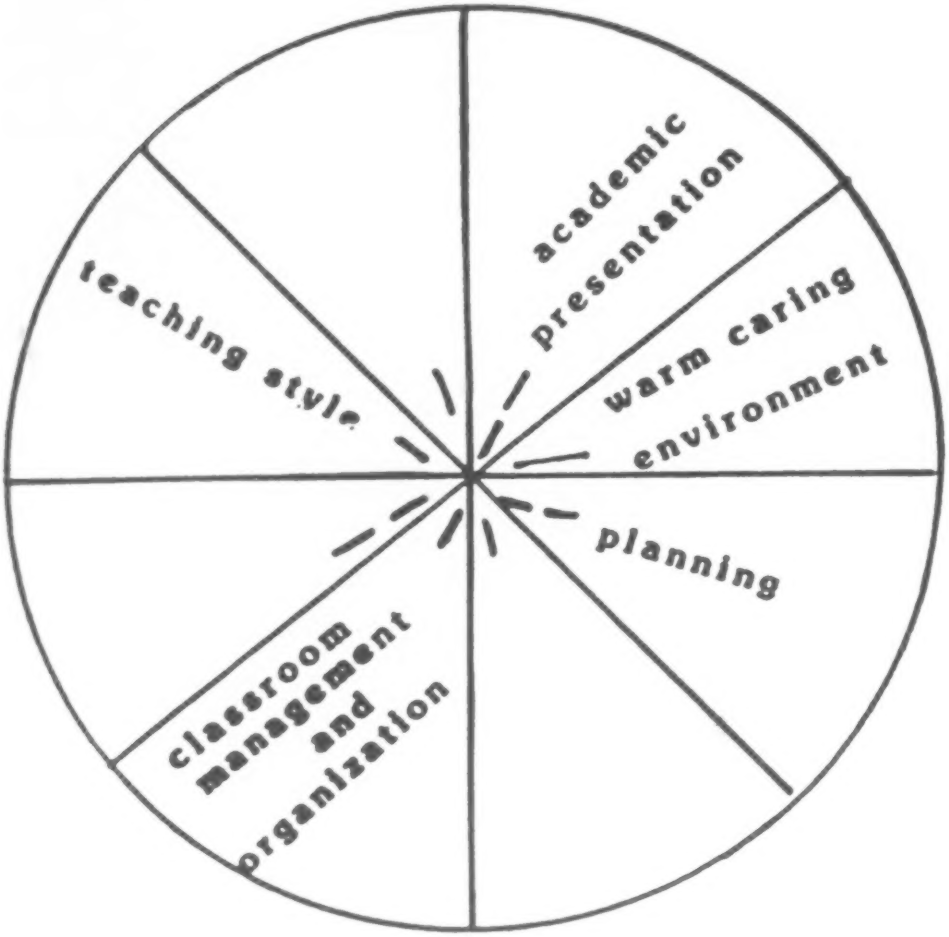
TEACHERS

STUDENTS

INCREASED ACHIEVEMENT SCORES

O.H. A-3

EFFECTIVE TEACHER PIE
guidelines for effectiveness


academic presentation
warm caring environment
planning
classroom management and organization
teaching style

SOUND RESEARCH CRITERIA

1. PROCEDURALLY RIGOROUS METHODOLOGY
2. "REAL" CLASSROOM FINDINGS
3. ABLE TO CLEARLY TRANSLATE TO PRACTICE
4. DIRECTLY RELATED TO CONCERNS AND/OR PROBLEMS OF TEACHERS

MAIN RESEARCH STUDIES

1. CLASSROOM MANAGEMENT AND ORGANIZATION. BROPHY AND EVERTSON

2. MISSOURI MATHMATICS EFFECTIVENESS PROJECT. GOOD AND GROUWS

3. RESEARCH IN READING - GRADES 7-12. STALLINGS

Researchers	Date of Publication of Findings	Grade	Content	Criterion Measures	Type of Study
1. Anderson, Evertson, and Brophy	1979	1	Reading	Metropolitan Achievement Test	experimental
2. Brophy and Evertson	1974	2,3		Metropolitan Achievement Test	correlational
3. Emmer, Evertson, and Anderson	1980	3		California Achievement Test	correlational
4. Evertson, Anderson, and Brophy	1978	7,8	Math English	California Achievement Test	correlational
5. Evertson, Emmer, and Brophy	1980	7,8	Math	content test (experimenter constructed)	correlational
6. Good and Grouws	1977	4	Math	Iowa Test of Basic Skills	correlational
7. Good and Grouws	1979	4	Math	Science Research Associates Achievement Test, content test (experimenter constructed)	experimental study I
8. Good and Grouws	1981a	6	Math	SRA Achievement Test, problem-solving test	experimental study II
9. Good and Grouws	1981b	8,9	Math	SRA Achievement Test, problem-solving test (experimenter constructed)	experimental study III
10. McDonald and Elias	1976	2,5	Reading Math	California Achievement Test	evaluation
11. Soar and Soar	1972	K,1		Metropolitan Readiness Test Early Childhood Inventory, Preschool Inventory	evaluation

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Researchers	Date of Publication of Findings	Grade	Content	Criterion Measures	Type of Study
12. Stallings and Kaskowitz	1974	1,3	Reading Math	Raven Problem-Solving Test Pupil Responsibility (IAR)	evaluation
13. Stallings	1978	7-12	Reading	California Test Basic Skills	correlational
14. Stallings, Needels, and Stayrook	1979	7-12	Reading	SRI adaption of California Achievement Test	experimental

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	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81a	GG 81b	SS	SK	S	SNS
Work-oriented atmosphere (task-oriented or academic focus)		+	+	+	+	+	+	(+)			+	+	+
1. allocates time for academics				+		+							
2. has high achievement expectations		+				+							
3. assumes role of instructional leader		+	+			+	+	(+)				+	+
4. assumes personal responsibility for learning			+										
5. communicates expected behaviors and attitudes		+	+			+							
Warm, supportive environment		+L[1]	+	+L		+	+	(+)				+	+
6. praises		+L		+	+	-					+		
7. displays confidence and enthusiasm				+									
8. accepts student contributions				+		+							
9. gives specific praise	+	+H[2]											
10. has individual, private contacts with pupils				+									
11. practices positive affect		+L			+								
12. engages in positive interactions												+	
13. allows autonomy		+H											
14. has orderly classroom						+	+	(+)					

[1] Low Ability

[2] High Ability

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	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81a	GG 81b	SS	SK	S PI	SNS PI
Classroom Administration													
1. is well-organized				+M[1]								+	+
2. has clear rules and procedures			+										
3. has written rules			+										
4. instructs pupils in rules and procedures			+										
5. begins class promptly			+										+
6. moves students through transition quickly and smoothly		+L[2]			+								
7. has materials ready			+										
8. has classroom arranged for ease of movement and visibility			+										
Prevention of Misbehavior													
9. is actively involved with students or actively instructing			+	+M	+							+	+
10. holds students accountable for behavior and successfully completed assignment			+	+M			+	(+)					
11. monitors classroom		+	+	+M									
12. signals appropriate behavior			+										
13. establishes eye contact			+										
14. uses a variety of rewards			+										
Reaction to Misbehavior													
15. responds quickly to misbehavior			+	+L E[3]	+							+	
16. corrects specific student	+	+H[4]	+										
17. cites specific rules			+										
18. consistency in enforcement					+								
19. use of milder, informative punishment		+											

[1] Math

[2] Low Ability

[3] English

[4] High Ability

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Preparing Students for the Lesson	A E B	B E	E E A	E A B	E E B	G G 77	G G 79	G G 81a	G G 81b	S S	S K	S PI	S S F
"Systematic Instruction"						+	+				+		
1. secures students' attention before beginning		+											
2. states objectives			+										
3. gives/seeks rationale for lesson	+		+				+	(+)					
4. reviews previous content							+	(+)					
Teacher Presentation of Lesson													
5. actively presents new material				+M[1]		+	+				+	+	-
6. provides clear presentations		+	+		+	+	+						
7. presents material in small steps		+											
8. engages in discussion/recitation				+M							+		-
9. maintains brisk pace		-L[2] +H[3]		+M		+							
10. maintains active participation by students in academics	+	+	+		+	+					+	+	
11. asks questions that students answer with higher degree of success		+											
12. varies cognitive level of questions		+H		+M	+								
13. has highly focused learning tasks										+C[4]			
14. has moderately focused learning tasks										+AC[5]			
15. conducts controlled practice over new material	+	+					+	(+)					

[1] Math

[2] Low Ability

[3] High Ability

[4] Concrete tasks

[5] Abstract/Complex tasks

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	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81a	GG 81b	SS	SK	S PI	SNS PI:
16. monitors responses for correctness	+	+					+	(+)					
17. provides feedback													
positive feedback											+	+	
negative feedback											+	-	
academic praise				+									
nonevaluative feedback	+	+			+	+					+	+M	+
supportive correction	+	-L									+	+M	+
process feedback	+					+	+						
18. checks for understanding of assignment	+	+L											
Student Practice After Presentation													
19. gives common seatwork assignments						+	+	(+)					
20. monitors seatwork	+	+L	+		+		+	(+)					+
21. works with individuals				+L E[6]									-
22. holds students accountable for assignment			+				+	(+)					
23. assigns homework		+H			+	+	+	(+)					
Evaluation of Student Learning													
24. holds students accountable for reasonable work standards			+										
25. checks homework						+	+	(+)					+
26. gives frequent quizzes												+L	+

[6] English

	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81_a	GG 81_b	SS	SK	S PI	SNS PII
Interaction With Students													
1. discusses lesson/questions with students (academic)				+M^1							+		+
2. interacts with individuals during lesson		+		+M									
3. calls on specific students		+										+	
4. calls on students in a systematic manner		+											
5. accepts volunteers				+M		+							
6. accepts "call outs"		-H		-H^2 +L^3									
7. waits for some response				+L M								+	+
8. probes, rephrases, questions, prompts		+L											
9. provides answer to question		+											
10. accepts substance of response		+											
11. maintains brisk pace during lesson		-L +H		+M		+							
1... varies question levels				+M									
13. asks process questions				+M	+								
14. stresses students' understanding of meaning						+	+	(+)					
15. has high rates of success for student answers		+											

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Organizing Instructional Activities	AEB	BE	EEA	EAB	EEB	GG 77	GG 79	GG 81$_a$	GG 81$_b$	SS	SK	S PI	SNS PII
1. relates content to student interest and background			+										
2. follows prescribed curriculum		+H											
3. moves briskly through curriculum				+M									
4. relies on workbooks/textbooks											+	+	
5. uses materials matched to ability levels of students											+		
6. uses large group or whole class instruction							+	(+)				+	+
7. uses small group instruction											+	+L	+
8. has students read aloud												+L	+
9. ability grouped class												+L	

[1] Math

[2] High Ability

[3] Low Ability

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TEACHER BEHAVIORS — FREQUENCY

A. Planning and preparation
1. t. allocates time per academics
2. t. posts assignments for day
3. t. posts assignments for week
4. t. provides calendar w/ass'mts

B. Presentation
1. t. gives/seeks rationale for lesson
2. t. presents new info. or content
3. t. refers to previous lesson content
4. t. uses materials
    a. kinds
    b. supply
    c. corrections made
5. t. divides complex tasks into steps
6. t. gives demonstration
7. t. uses concrete examples
8. t. makes comparisons
9. t. points out patterns
10. t. uses ex. related to Ss interests
11. t. gives directions
12. t. relates new activity to previous or future activity

C. Interactions
1. t. asks questions where Ss provide "the" answer (Product Ques.)
    a. correct
    b. incorrect
    c. no answer
2. t. asks questions where Ss provide "how" and "why" (Process Ques.)
    a. correct
    b. incorrect
    c. no answer
3. t. calls on Ss
    a. non-volunteers
    b. in predetermined pattern
    c. accepts callouts
    d. volunteers - hands up
4. t. waits for Ss to respond to ques.
5. t. explains "how" or "why" the ans. was obtained (process explanation)
6. t. accepts academic comments by Ss during lesson
7. t. accepts content questions during lesson
8. t. accepts procedure questions during lesson
9. t. answers content questions asked by Ss after instruction
10. t. answers procedure questions asked by Ss after direction-giving

D. Practice
1. t. conducts practice over new (or old) material in whole group
2. t. checks Ss responses for correctness
3. t. provides feedback
4. t. moves around classroom
5. t. reminds Ss that they should be working or participating
6. t. reminds Ss that work will be checked

E. Seatwork
1. t. watches class after making ass'mt
2. t. reacts to Ss not complying with assignment
3. t. circulates as Ss work
4. t. scans seatwork as Ss work
5. t. gives individuals assistance
6. t. assigns extra credit work to more able Ss
7. t. assigns work using higher cognitive levels (analysis or above)

F. Holds Ss responsible for ass'mts
1. t. makes daily homework ass'mts.
2. t. tells Ss their work will be checked
3. t. tells Ss they must complete ass'mt
4. t. makes ass'mts using procedure
5. t. has Ss record ass'mts in designated place
6. t. requires Ss to keep notebooks to store assignments
7. t. collects assignments daily
8. t. checks/grades papers
9. t. returns graded work to Ss
10. t. communicates make up work to Ss
11. t. relates Ss work to grades

TEACHER BEHAVIORS — FREQUENCY

G. Organizes classroom
1. t. allocates time to teach rules/procedures
2. t. states, posts, or write rules/procedures

H. Presentation of rules/procedures
1. t. provides/seeks a rationale for rules and procedures
2. t. communicates to Ss desired attitude
3. t. communicates to Ss desired behavior
4. t. introduces groups of rules and procedures at different times
5. t. explains rules and procedures in concrete terms
6. t. demonstrates rules & procedures
7. t. breaks complex r&p into steps
8. t. explains cues associated w/r&p
9. t. demonstrates cues
10. t. has Ss practice r&p
11. t. gives feedback on Ss performance
12. t. reteaches r&p
13. t. communicates consequences to Ss

I. Holds Ss responsible for behavior
1. t. observes Ss behavior
2. t. uses r&p for use of materials/areas
3. storing Ss possessions
4. using learning centers
5. Ss use of shared materials, cabinets
6. Ss use of T's desk and area
7. Ss use of drinking fountain/sink
8. Ss use of pencil sharpener
9. Ss use of bathrooms
10. Ss use of out-of-class bathrooms, drinking fountains, office, lib., resource room, health office
11. passing out books and supplies
12. telling Ss which materials to bring to groups
13. playground
14. lunchroom

t. uses r&p for discussion
15. S participation in class disc.
16. talk among Ss during academic presentation
17. talk among Ss during seatwork
18. talk among Ss during freetime

t. uses r&p for movement
19. Ss lining up to leave room
20. Ss coming and going to other areas of school
21. Ss movement into and out of groups
22. Ss leaving seats during academic presentation
23. Ss leaving seats during seatwork
24. Ss leaving seats during free time

t. uses r&p for assignments
25. Ss getting t. attention for help
26. Ss turning work
27. handing back assignments
28. Ss making up work
29. Ss activities after seatwork is finished

t. uses r&p for
30. selecting Ss for helpers
31. using Ss helpers
32. t. uses r&p for Ss conduct during interruptions and delays
33. t. uses r&p for cueing Ss attention

J. Reactions to Ss behavior
1. t. reacts to Ss not following r&p
2. t. reacts to Ss following r&p
3. t. uses consequences for inappropriate behavior
4. t. uses consequences for appropriate behavior
5. t. reacts to undesired attitudes
6. t. reacts to desired attitudes
7. t. uses consequences for undesired attitudes
8. t. uses consequences for desired attitudes

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Desired Teacher Behaviors

Planning and preparation

- teacher allocates time per academics
- teacher posts assignments for day
- teacher posts assignments for week
- teacher provides calendar with assignments

Presentation of content

- teacher gives or seeks rationale for lesson
- teacher presents new information or content
- teacher refers to previous lesson content
- teacher uses materials
- teacher divides, compiles tasks into steps
- teacher gives demonstration
- teacher uses concrete examples
- teacher makes comparisons
- teacher points out patterns
- teacher uses examples related to students' interests
- teacher gives directions
- teacher relates new activity to previous or future activity

Interactions

- teacher asks questions where students provide "the" answer (product questions): (a) correct, (b) incorrect
- teacher calls on students
  - non-volunteers
  - in predetermined pattern
  - accepts callouts

- teacher waits for students to respond to questions
- teacher explains "how" or "why" the answer was obtained (process explanation)
- teacher accepts academic comments by Ss during lesson
- teacher accepts content questions during lesson
- teacher accepts procedure questions during lesson
- teacher answers content questions asked by Ss after instruction
- teacher answers procedure questions asked by Ss after direction-giving

Practice

- teacher conducts practice over new (or old) materials in whole group
- teacher checks students' responses for correctness
- teacher provides feedback
- teacher moves around classroom
- teacher reminds students that they should be working or participating
- teacher reminds students that work will be checked

Seatwork

- teacher watches class after making assignment
- teacher reacts to students not complying with assignment
- teacher circulates as students work
- teacher scans seatwork as students work
- teacher gives individuals assistance
- teacher assigns extra credit work to more able students
- teacher assigns work using higher cognitive levels (analysis or above)

Holds students responsible for assignments

- teacher makes daily homework assignments
- teacher tells students their work will be checked
- teacher tells students they must complete assignment
- teacher makes assignments using procedure
- teacher has students record assignments in designated place
- teacher requires students to keep notebooks to store assignments
- teacher collects assignments daily
- teacher checks/grades papers
- teacher returns graded work to students
- teacher communicates make-up work to students
- teacher relates students' work to grades

Organizes classroom

- teacher allocates time to teach rules/procedures
- teacher states, posts, or writes rules/procedures

Presentation of rules/procedures

- teacher provides/seeks a rationale for rules and procedures
- teacher communicates to students desired attitude
- teacher communicates to students desired behavior
- teacher introduces groups of rules and procedures at different times
- teacher explains rules and procedures in concrete terms
- teacher demonstrates rules and procedures
- teacher breaks complex rules and procedures into steps
- teacher explains cues associated with rules and procedures
- teacher demonstrates cues
- teacher has students practice rules and procedures

- teacher gives feedback on students' performance
- teacher reteaches rules and procedures
- teacher communicates consequences to students

Holds students responsible for behavior

- teacher observes students' behavior
- teacher uses rules and procedures for use of materials/areas
    - storing students' possessions
    - using learning centers
    - students' use of shared materials, cabinet
    - students' use of teacher's desk and area
    - students' use of drinking fountain/sink
    - students' use of pencil sharpener
    - students' use of bathrooms
    - students' use of out-of-class bathrooms, drinking fountains, office, library, resource room, health office
    - passing out books and supplies
    - telling students which materials to bring to groups
    - playground
    - lunchroom
- teacher uses rules and procedures for discussion
    - student's participation in class discussions
    - talk among students during academic presentation
    - talk among students during seatwork
    - talk among students during free time
- teacher uses rules and procedures for movement
    - students lining up to leave room

        - students coming and going to other areas of school
        - students' movement into and out of groups
        - students leaving seats during academic presentation
        - students leaving seats during seatwork
        - students leaving seats during free time
    - teacher uses rules and procedures for assignments
        - students getting teacher's attention for help
        - students turning in work
        - students handing back assignments
        - students making up work
        - student activities after seatwork is finished
    - teacher uses rules and procedures for helpers
        - selecting students for helpers
        - using student helpers
    - teacher uses rules and procedures for student conduct during interruption and delays
    - teacher uses rules and procedures for cueing student attention

Reactions to students' behavior

- teacher reacts to students not following rules and procedures
- teacher reacts to students following rules and procedures
- teacher uses consequences for inappropriate behavior
- teacher uses consequences for appropriate behavior
- teacher reacts to undesired attitudes
- teacher reacts to desired attitudes
- teacher uses consequences for undesired attitudes
- teacher uses consequences for desired attitudes

SITE PLANNING BOOKLET

DESCRIPTION OF REGULARITIES

INTERVENTION PROCESS

INTERVENTION CONTENT

STAFF DEVELOPMENT ACTIVITIES

INTERACTION ABOUT TEACHING AND SCHOOLING

PEER OBSERVATION

ON-CALL ASSISTANCE

PROVISION FOR REFLECTION

SESSION B

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session B - four hours

PURPOSE This workshop applies the effective teaching behaviors introduced in Session I and introduces the second main theme, "Effective Staff Development."

Participants will be able to:

1. identify effective teaching behaviors on a videotape
2. define and give three examples of instructional support
3. identify and be able to apply the effective staff developer behaviors
4. continue the development of the site plan

TRAINING HINT Continue to model the effective teacher/staff developer behaviors

MATERIALS NEEDED:

Agenda
Videotape #1
Site Planning Workbook A-11

HANDOUTS

B-1 Agenda
B-2 BTOI excerpts
B-3 Case Study #2
B-4 Staff Developer Behaviors
B-5 Changing Teacher Practice Report No. 9008

OVERHEADS

B-1
B-2

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session B - four hours

FIRST HOUR
H.O. B-1
Preparation
Plan a short adult lesson on a topic of your choice to illustrate effective teacher behavior, B 1-12

Review of Session I

Today we are going to review the effective teaching behaviors--Academic Presentations. You did so well in Session A that we are going to build on that knowledge.

We will apply those concepts and move further into the area of effective staff development.

The way to begin today is for you to observe the lesson I am going to give and identify as many of the effective behaviors as you can. Also jot down ideas and/or suggestions you might give to improve the lesson.

Hand-Out B-2-1
Overhead B-1-1

Review B

Let's review the 12 behaviors which fall under the category--Presentation of the Lesson-B.

Present
Model Lesson

Now for the lesson.

Large Group Discussion
Discuss behaviors demonstrated by the trainer and field questions.

There are two main areas of effective teaching. We just covered some of the behaviors in the area of Academic Presentation.

SECOND HOUR
Hand-Out B-2-2

What is the second area?
Right, Classroom Management and Organization.

Review, G, H,
I, J.

Let's look over the behaviors as described in the Barnes Study as those exhibited by more effective classroom managers.

Videotape #1
"The First Day of School in a Third Grade Class"
ASCD, 40 minutes showing the first 20 minutes of the tape is sufficient. Questions for discussion regarding the tape may be found in the script.

We will now view a videotape of a simulation "The First Day in A third Grade Classroom." As with any videotape this one has a few constraints.

As we all know the first day of class is an experience not a simulation and it cannot be duplicated like it really happens. But this tape does attempt to model the effective behaviors a teacher should exhibit on the first day of class.

The tape appears choppy. Editing was done to collapse a full day of management into a 40 minute tape.

The size of the class is certainly smaller than the ones we see in our district or our state. It is the total number of students in Mrs. C's third grade class. They were filmed mid-year.

With your observation sheets ready, please identify as many of the effective teaching behaviors as possible which the teacher exhibits.

LARGE GROUP DISCUSSION

Questions following the first 20 minutes of the tape:

1. What evidence do we have of planning in this classroom?
2. In what ways does the teacher cue the students for appropriate behavior?
3. What rationale is given for Miles?
4. How do this teacher and her students model appropriate behavior?
5. Give examples of the reinforcement of acceptable behavior and attitude.
6. Why does the teacher spend so much time on the word "loiter?"
7. How does the teacher let the students know that she takes responsibility as the instructional leader?

Allow time for further discussion and questions.

THIRD HOUR

A strong research base has been given to you in the area of effective teaching. For the next two hours we will begin to discuss the many ways these effective teaching behaviors may be introduced to your staff.

There is a caution to be made here. We are wearing our staff developer hats throughout this training program. We are trying to improve our skills as instructional leaders and thereby improve the teaching skills of our teachers. We are not wearing our evaluator's hats. There is a basic difference between instructional support and evaluation.

Instructional support is the involvement of the site administrator in the on-going improvement of the instructional program. This means the instructional leader of a school exhibits a number of behaviors which shows the students and staff that teaching and learning are the two most important activities at the school.

These instructional support behaviors include:

- clear statement of instructional goals
- frequent classroom observations
- monitoring of instructional program(s)
- reinforcement and rewarding of effective teaching

These behaviors encourage the improvement of each teacher and student. Instruction leaders are involved in instructional improvement on a daily basis--not only at evaluation time.

As the training goes on these behaviors will be discussed more thoroughly.

Hand-Out B-4-5
Research Sources:
Rand Study
I/D/E/A
CBAM
Organization Development

There are certain behaviors which research has inferred lead to positive teacher change. These 21 behaviors encourage positive change not only in the classroom, but among colleagues and within the organization. We will now review these behaviors.

Outline of Staff Developer Behaviors:

Preparation: Read thoroughly B-5, "Changing Teacher Practice: A Synthesis of Relevant Research," Edwards, #9008 Walk through each behavior describing and giving examples.

1. school classroom regularities (Sarason)
   - things that are givens, often out of our control (bus schedules, starting time, competencies, bell schedule).

   - administrators are often boxed in by regularities

2. teachers to interact about teaching and schooling
   Bentzen, 1974, teaching is lonely profession--teachers feel isolated (2 x 4 x 6 teacher--2 pages of a book, 4 walls of a room, 6 hours of a day). Developing professional collegiality breaks down these barriers.

3. teachers to observe one another and discuss
   Research has shown this to be the most effective staff developer behavior. Breaks down the walls.

4. opportunities to plan together and implement
   Ownership of a plan and working together to implement that plan is another way to affect positive change.

5. providing feedback which is objective, concrete and focused
   Classroom observations permit the instructional leader to discuss teaching behavior and provide objective feedback.

BEST COPY AVAILABLE

Class: Give an example of objective feedback.

6. teacher time to deal with teacher problems
   Set aside time in staff meetings for procedural matters, but use teacher time to deal with teacher problems, issues and concerns.

7. interact with teachers in friendly and positive ways
   "You attract more...with sugar than you do with vinegar." Building a team and a sense of trust is required before the onset of any change.

8. adapt to personal and organizational characteristics of "users"
   Each school and staff is unique. Modification of staff development plans may be necessary to meet those unique needs.

9. demonstrate knowledge of effective teaching
   So far the research base for this knowledge has been given.

10. provide in-class assistance
    A coach or mentor teacher to help improve another teacher's skills. Coaching is a most effective tool to fine tune skills.

11. provide specific, concrete resources
    Be able to help teachers find materials, specialists or other assistance to meet their needs.

12. engage in problem identification, solution formulation, and testing activities
    Three areas where teachers need to be more involved--each insures more ownership and collegiality.

13. adaptation of strategies according to characteristics of students, classroom, and school
    Teachers and school will reshape the program to meet their own needs. Rand Study "mutual adaptation."

14. "teachers can make a difference"
    Provide evidence: new program, increased test scores, more community development.

15. "link teachers to technical assistance outside the school
    Sometimes resources are in the community--these resources need to be tapped.

16. communicate expectations clearly and precisely
A good teaching and staff development behavior.

17. diagnose individual stages of concern of teachers
CBAM Study self--task--impact, where are they on the continuum?

18. formulate interventions based, in part, on SoC
Where teachers are on the continuum determines what type of intervention would be most successful.

19. provide consistent, on-going assistance
Support, encouragement, and help are necessary to the continuation of any change.

20. include the building principal
Research has shown that the number one change agent in a school is the principal. To implement a successful change he/she must be included.

21. time for reflection
A powerful aspect of leadership. Time to think back, use as a basis to maintain or modify behavior.

FOURTH HOUR
Use Hand-Outs B-3 and B-4

Application of Staff Development Behaviors

Allow 10 minutes to read Case Study B-3 and respond to questions on the handout.

This activity is to practice the application of the staff development behaviors. State your goals and how you would go about achieving them.

Overhead B-2

Large Group Activity

Discuss participants goals and suggested activities.

Planning for Site Implementation

- continue completion of site workbook--concentrating on activities pages

HANDOUTS SESSION - B

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session B - four hours

SAMPLE AGENDA

First Hour

- Review of Session I (Spaced Practice)
- Modeling of Effective Teaching Behaviors
- Recognizing Desired Teaching Behaviors

Second Hour

- View of videotape #1, "The First Day of School in a Third Grade Class."*

Third Hour

- Providing Instructional Support: Desired Staff Developer Behaviors
- research base

BREAK

Fourth Hour

Application of Staff Developer Behaviors

- case study B-3
- discussion

Planning for Site Implementation (cont.)

- use of planning workbook

*Videotape EFFECTIVE CLASSROOM MANAGEMENT available from:

Association for Supervision and Curriculum Development
225 North Washington Street
Alexandria, VA 22314

San Diego City Schools
POSITIVE TEACHER BEHAVIORS

*Observation checklist:

B. Presentation of the lesson:

Teacher

1) gives/seeks rationale for lesson_________
2) presents new information or content______
3) refers to previous lesson content________
4) uses materials______
   a. kinds_____
   b. supply____
   c. corrections made_____
5) divides complex tasks into steps________
6) gives demonstration________
7) uses concrete examples_____
8) makes comparisons______
9) points out patterns_____
10) uses experience related to students interests_____
11) gives direction_____
12) relates new activity to previous or future activity_____

D. Practice:

Teacher

1) conducts practice over new (or old) materials in whole group____
2) checks students responses for correctness_____
3) provides feedback_____
4) moves around classroom_____
5) reminds students they should be working or participating_____
6) reminds students that work will be checked______

*Excerpted from Barnes Teacher Observation Instrument

POSITIVE TEACHER BEHAVIORS

*Observation checklist:

G. Organizes classroom:
  1) allocates time to teach rules and procedures_____
  2) states, posts, or writes rules and procedures_____

H. Presentation of rules and procedures:
  Teacher
  1) provides/seeks a rationale for rules and procedures_____
  2) communicates to students desired attitude_____
  3) communicates to students desired behavior_____
  4) introduces groups of rules and procedures at different times____
  5) explains rules and procedures in concrete terms_____
  6) demonstrates rules and procedures_____
  7) breaks complex rules and procedures into steps_____
  8) explains cues associated with rules and procedures_____
  9) demonstrates cues_____
  10) has students practice rules and procedures_____
  11) gives feedback on students' performance_____
  12) reteaches rules and procedures_____
  13) communicates consequences to students_____
  14) uses materials_____
    a. variety_____
    b. adequate supply_____
    c. complete and correct_____

I. Rules and procedures:
  Teacher
  1) observes students' behavior_____
  2) uses rules and procedures for use of materials/areas_____
    a. using learning centers_____
    b. using shared materials, cabinets_____
    c. using drinking fountain/sink_____
    d. using pencil sharpener_____
    e. using bathrooms_____
    f. passing out books and supplies_____

3) rules and procedures for discussion_____

a. participating in class discussion_____

b. restricting talk among students during academic presentation__

c. restricting talk among students during seatwork_____

d. talking among students during free time_____

4) rules and procedures for movement_____

a. moving into and out of groups_____

5) rules and procedures for assignments_____

a. getting teacher's attention for help_____

b. activities after seatwork is finished_____

6) uses rules and procedures for cueing students' attention_____

J. Reactions to student behavior:

Teacher

1) reacts to students not following rules and procedures_____

2) reacts to students following rules and procedures_____

3) uses consequences for inappropriate behavior_____

4) uses consequences for appropriate behavior_____

*Excerpted from Barnes Teacher Observation Instrument

FOCUS ON EFFECTIVE TEACHING AND STAFF DEVELOPMENT

Application of Staff Development Behaviors

Please read this hypothetical case and use it to suggest staff development strategies you believe would be appropriate for the people, the situation, and the problems. We will discuss the case and your suggestions.

You have been principal of a medium-sized (450 students) elementary school in a lower middle-class neighborhood for one year. The student population is racially balanced. The school community has a history of being supportive of the school's work. The teaching staff is, except for two new teachers, experienced. Your estimation of the school is that there are several problem areas: (1) the quality of teaching is variable in that about half of the teachers appear to be less effective than the other half, (2) student achievement varies from classroom to classroom although you cannot discern any appreciable differences among classroom groups of students, (3) the administrative requirements of your position (and the lack of a vice principal or resource teacher) limit possibilities for working with all teachers, and (4) because most of the teachers have earned their Masters degrees they do not regularly receive professional education beyond the inservice opportunities provided by the district. You believe that the faculty members are generally receptive to new ideas although you have deliberately played more of an observer role than a leadership one during your first year.

In planning for the new school year, with the problems above kept in mind, what goals do you have and how would you go about achieving them? Use the space below to make any notes you might want to refer to during the discussion.

Desired Staff Developer Behaviors

The review of related research has provided an overview of findings from large-scale efforts to understand the consequences of certain change strategies. From that review, we have selected certain behaviors which can be logically inferred to be related to positive teacher change. It is these behaviors which will be introduced to staff developers and will be looked for during data collection subsequent to the treatment. The desired staff developer behaviors are listed below.

- diagnose school- and classroom-specific regularities
- provide teachers with opportunities to interact with one another about teaching and schooling
- provide teachers with opportunities to observe one another and to discuss what was observed
- provide teachers with opportunities to plan together and to implement the plans
- provide teachers with feedback which is objective, concrete, and focused
- use teacher time to deal with teacher problems, issues, and concerns (rather than with administrative, routine, or procedural matters)
- interact with teachers in friendly and positive ways
- adapt staff development behavior according to personal and organizational characteristics of "users"
- demonstrate knowledge of "effective" teaching as revealed by research
- provide in-classroom technical assistance (e.g., coaching) to teachers
- provide teachers with specific, concrete resources
- engage teachers in problem identification and solution formulation and testing activities

- work with teachers on adaptation of teaching strategies according to the characteristics of students, the classroom, and the school
- provide teachers with evidence that "teachers can make a difference" in pupil outcomes
- link teachers to technical assistance outside the immediate school environment
- communicate expectations clearly and precisely
- diagnose individual stages of concern of teachers
- formulate interventions based, in part, on teacher's stages of concern
- provide consistent, ongoing assistance to teachers
- include the building principal in activities designed to help teachers be more effective
- reflect upon the effects of his/her behavior and use that reflection as a basis for decisions about maintenance or modification of that behavior

Research and Development Center for Teacher Education
The University of Texas at Austin
Austin, Texas 78712

CHANGING TEACHER PRACTICE

A Synthesis of Relevant Research

Sara Edwards

Report No. 9008

Research in Teacher Education Division
Gary A. Griffin, Program Director
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CHANGING TEACHER PRACTICE

Increasing interest in and efforts at changing teacher practice suggest the need for a clearly stated justification; a firmly grounded knowledge base regarding methods, treatments, or interventions being used and/or advocated; and rigorous attention to intentions and results or effects. The complexity and uniqueness of the school setting, the process of mutual adaptation between any change effort and its object, and the present lack of predictability and control of effects of change efforts strongly indicate the need for researchers and practitioners to work jointly towards these ends. Yet, in changing teacher practice, as in other aspects of education, practice and research and theory seem to be separated by a considerable gap. Researchers note the resistance of teachers to research based external impetus to bring about change in their practice, and teachers view with disdain the varied, sometimes contradictory, conclusions of research studies which they perceive as unrelated to the real world of the classroom.

The president of the Association for Supervision and Curriculum Development (ASCD) points out two problems to consider in changing teacher practice (Day, 1981): 1) the apprehensiveness of teachers about the process of evaluation, their distrust of the accountability movement, and their fearfulness of becoming scapegoats for the failure of innovations about which they were unenthusiastic to begin with, and, 2) the low societal priority of intangibles like staff development.

The whole idea of staff development is based on the assumption that improvement can be promoted and directed, yet many workshops and programs of in-service training for teachers are conducted without evidence that they will produce better teaching. The use of research findings in informing in-service training is based on the assumption that a dependable knowledge base will increase the likelihood of the training resulting in better teaching, yet some research findings are selectively emphasized while other are minimized in drawing conclusions upon which to base in-service training. For example, Good and Grouws (1981) note that while their three-year process-product study of fourth grade mathematics instruction allowed the identification of consistent behavior patterns for high-effective and less-effective teachers, many of the teachers in the study did not perform consistently. In terms of the criteria used (student scores on standardized achievement tests), one year these teachers were less effective and the next more effective and the researchers did not know the reasons for the fluctuations. An understanding of these fluctuations might produce a form of in-service approach different than a focus on only the identified consistent behavior patterns.

In the absence of a direct and consistent link between training and practice and student outcomes, staff development programs have become a conglomeration of activities determined by decision making criteria such as cost or availability or attractive packaging or strong advertising. And, these ad hoc staff development programs are likely to continue to be implemented in schools until effective, dependable systems of staff development become available and disseminated.

It is the intent of this paper in addressing the issue of changing teacher practice to promote the collaboration of researcher and practitioner in developing those effective systems for facilitating desirable changes and in putting those systems into practice. The issue is a cloudy one, with contradictory approaches, perspectives and conclusions, just as education is a cloudy issue, including, as it does, such disparate parts as instruction and socialization, development and expansion and supervision and control. Neither research nor practice provide consensus; both present a panorama of possibilities. However, if the varying approaches, findings, and conclusions are viewed as a "blind man describing the elephant" phenomenon, it is not necessary to demand consensus nor to select and reject in the pursuit of consistency. Rather, the divergent approaches and differing conclusions can expand awareness of the complexities inherent in the process of changing teacher practice and serve as an impetus toward development of a more comprehensive conceptualization of that process.

So the diversity and contradictions will be included and the narrow view of changing teacher practice as simply the alteration of an overt behavior will be considered side by side with the more complex view of altering the entire conceptual framework within which the individual functions. By juxtaposing the various orientations and perceptions it may be possible to imagine a larger pattern (the silhouette of the elephant) which would allow each of the views to be "right" and useful in formulating an expanded and more inclusive research effort toward improving teacher practice.

Orientations

There are several assumptions regarding the issue of changing teacher practice on which there appears to be general agreement: 1) that change within the educational system is necessary, even inevitable (Harmon, Note 1); 2) that schools are complex social institutions in which change does not easily occur (Sarason, 1971); 3) that the function of schooling is to produce outcomes in students (Goodlad, 1972); 4) that teacher practice is directly related to student outcomes (Dunkin & Biddle, 1974); and, 5) that a desired change in student outcomes can be facilitated by an appropriate change in teacher practice (Hall & Loucks, Note 2).

However, despite this common basis, there is a confusing diversity of beliefs and approaches regarding the issue. Koehler (Note 3), noting the difficulties of determining whether individuals formulate their research on the basis of their beliefs about teacher change, or develop their beliefs about teacher change from their research, expressed the opinion that these different perceptions of teacher change "will probably cause more conflict and tension among their advocates than have the various approaches to the study of teaching" (Koehler, Note 3, p. 1). There is a gap of some kind -- whether in practice, belief, perception, or all of these and more -- between advocates of changing teacher practice who focus on discrete and highly specific competencies such as how to teach children to turn their workbooks without fumbling (Gudridge, Note 4), and persons who, rejecting the "amazingly slow pace" of school instruction, teach twelve year olds in several five-hour days to design computer programs (Pierce, 1981).

There may be an even greater conflict between those whose intent is to use teacher practice to produce a social product -- creative leaders and docile workers -- and those whose intent is to use teacher practice as an impetus to social change (Freire, 1970, and Grace, 1978). And, certainly, there are differences, both in intent and in methodology, among change efforts informed by a behavioral model versus a cognitive developmental model theory. The behaviorist might emphasize direct training in classroom management and specific skills on the assumption that if the teacher follows the correct procedure, the desired student outcome will result. The developmentalist might view facilitation of student development as the teacher's responsibility but not hold teachers accountable for predictable specific outcomes in students.

Obviously there are conflicting views as to how people "learn" and what knowledge is of greatest import. It is likely that different findings and certainly different conclusions would result from an approach which assumes that teacher practice is formed by elements or components which can be extracted intact for observation and/or manipulation, and an approach which assumes synergetic functioning, demanding holistic consideration of teacher practice in change efforts. For example, a process-product approach (Brophy & Evertson, Note 5) correlationally linking specific teaching behaviors to specific student outcomes provides a very different orientation to change efforts than an approach which regards the promotion of adult development in teachers (Oja, 1978) as a means toward facilitating developmental growth in students.

Faced with this diversity and complexity, researchers appear to respond by differentiation, specialization and consistency. That is, they select among the available frameworks and build on the work of others who have used a similar paradigm, seeking to expand the knowledge data base and support the theoretical structure of their chosen views. Procedure and rigor of specific studies are often questioned and conclusions are sometimes debated but the conceptual bases of the investigations are seldom challenged. Behaviorists cite behaviorists and are evaluated by behaviorists, developmentalists cite the work of other developmentalists and are evaluated by developmentalists, and so on. Seldom are divergent perspectives and/or approaches given serious consideration in forming an investigation. Practitioners -- teachers -- on the other hand, appear to resolve the problem of diversity overload through syncretism, reacting to pressure from various sources with behaviors reflecting different, sometimes theoretically contradictory orientations, but operationally responsive to the most immediate perceived need. As a result, researchers and change agents may perceive teachers as unresponsive to data-based change interventions and teachers may perceive researchers as isolated from reality.

A synthesis of the literature relating to changing teacher practice, if it is to relate to researchers and practitioners, must take into account the perspectives of both, discussing not only the findings of various studies but also the beliefs about changing teacher practice which inform the questions and methodology and mediate conclusions regarding the findings.

Knowledge Base

Three widely and frequently cited efforts provide extensive data regarding changing teacher practice: 1) the Rand Corporation study of federal programs supporting educational change (Berman & McLaughlin, 1978); 2) the I/D/E/A five year study of change in individual schools (Bentzen, 1974); and, 3) the Concerns Based Adoption Model (CBAM) work on the implementation of innovations (Hall & Loucks, Note 2).

The I/D/E/A Study

The findings of the five-year Study of Educational Change and School Improvement (SECSI) conducted by the Institute for Development of Educational Activities, Inc. (I/D/E/A) are the basis of significant intensive, clinical training for teachers and administrators. The central thesis of this study is that adults in schools must learn to help themselves. This means, according to Goodlad (1974), "that they must think together, plan together, decide together, and act together in dealing with problems inevitably inherent in schools" (p. XIII). And they need help, support, and encouragement in doing so.

The intent of the SECSI project was to effect and to study change in the schools. Eighteen elementary and secondary schools were joined in a self help League of Cooperating Schools with SECSI staff serving as helpers, supporters and encouragers in an attempt to effect change. The study component revolved around understanding a school staff's receptivity to change.

The study identified a set of behaviors as the process by which all staffs consider change or reject it. This process of dialogue, decision making, action and evaluation (DDAE) reflected the school's openness to change. The study found that individually competent teachers put together in a school will not automatically be a group or staff that copes positively with changing demands on the school. Self-renewing schools were the product of a group enterprise. The basis of the SECSI intervention was the development of peer groups of schools. The basis of its study was the measurement of the DDAE process as an indication of the level of staff receptivity to change. The "level" of the process was determined by four characteristics: scope, importance, relevance, and flexibility.

The earliest findings of the study confirmed that teaching "tends to be lonely, often dull, work ringed about by fears of the unknown that might result from changes" (Bentzen, 1974, p. 195). The study also found that increased interaction among schools helped alleviate the loneliness, dullness and fear. Staffs within the League Network were more willing to try something new because peers encouraged rather than censured when a staff experienced failure.

Information from the study suggested that League schools came to hold certain expectations for the group and for themselves as League members. "League staffs were supposed to hold relatively non-traditional views about schooling; League staff were supposed to look critically at what they were doing" (Bentzen, 1974, p. 197). Though not all schools met them, the expectations were there.

The study also suggests the difficulty of changing the interventionists' perception of what they should and should not do. "School staffs have been treated by interventionists with condescension, pity, scorn, and despair, but rarely with dignity" (Bentzen, 1974, p. 201).

The SECSI study proposes peer group strategy as a means of effective change. The idea is that the intervention will build and maintain group expectations and that the school staffs will, in turn, pressure their individual members to change in the desired direction.

While the study certainly supports the value of this strategy it does not presume to generalize to all situations and it does not assert that peer group strategy is the only intervention strategy that should be used in schools.

The Rand Study

The four-year, two-phase Rand study provided survey data on 293 change-agent projects, and intensive case analysis of 29 projects (Berman & McLaughlin, 1978). The findings strongly suggest the importance of the role of the teacher in the change process and indicate the significance of site-to-project effects in the process of mutual adaptation of the school and the intervention.

The study analyzed the effects of specific federal policies on local change processes. The first phase focused on strategies and conditions promoting change in the schools; the second phase focused on factors influencing the sustaining of change.

Using findings from both phases, the study described the local process of change in regard to initiating and sustaining innovative projects. The study found that few school districts in the sample group actually conducted a rational search for better ways to educate students. Rather, the selection process was more a "complex interplay among organizational forces, political pressures, personal motivations, and educational concerns" (Berman & McLaughlin, 1978, p. 14).

The study found that each classroom, each school and each school system implemented a given innovation in different ways, and that in the process of the implementation both the innovation and the characteristics of the setting were changed. This process, termed mutual adaptation, resulted in a variety of adjustments to the project and in the acquisition of new attitudes and behaviors by the staff implementing the project, as the persons involved tried to make the project work for them in their own settings. Although the process of mutual adaptation did not assure the successful implementation of a project, it did increase the likelihood of that success. And, a crucial point to consider in changing teaching practice, the study found mutual adaptation to be the only implementation process leading to teacher change because the teachers changed only as they adapted the project's design to their own particular situation.

Study findings emphasize the fact that there is no single factor that guarantees successful education change. What happens with a change effort depends on the interplay of the characteristics of both the change intervention and the setting to be changed.

Classroom organization projects and projects designed to include community involvement appeared to have a direct effect on promoting change in teacher practice. The cost of the project did not appear to be a factor in eliciting teacher change. Data from the study indicate that teachers rise to challenges, responding more positively to ambitious and demanding innovations than to mundane or routine projects. However, a more ambitious scope of a project did not automatically assure success. Projects that were more comprehensive (including many schools and most grades) tended to be less likely to produce teacher change. Teachers with many years on the job were found to be less likely to change their own practice.

One factor, however, did show a strong, positive relationship to all of the project outcome measures: a teacher's belief that the teacher can be of help to all students. The study referred to this belief characteristic as a "sense of efficacy" which represented the teachers' attitudes about their own professional competence.

The Rand research indicates that local staff development activities could significantly improve teacher practice. But the study underscores the importance of mutual adaptation and the influence of factors and characteristics of the local setting. Packaged and rigid training programs are contraindicated, as is an unthinking, uncritical adherence to generalizations. Berman and McLaughlin point out that even some strategies which were clearly indicated by the study usually to be ineffective "due to their mismatch with the typical reality of school district life and with the dominant motivations and needs of teachers" (Berman & McLaughlin, 1978, p. 27) could be useful in atypical instances.

The Concerns-Based Adoption Model

The Concerns-Based Adoption Model (CBAM) provides a structure for staff development planning which focuses on the process of change as a personal experience (Hall & Loucks, 1978; Hall & Loucks, Note 2). The perceptions, feelings, motivations, frustrations, and satisfactions of teachers about an innovation are identified and classified according to a developmental scheme of stages. The process of change by which a person moves through these stages is attended to so that an innovation can be implemented. Concern-based staff development recognizes and accepts as legitimate the concerns of the persons involved in the change process. Change is regarded as long term and developmental, and individuals are perceived to need support as they experience change. In this model any process or product that the teacher has not previously encountered is regarded as an innovation for that teacher.

Seven stages of concern through which individuals pass with regard to any innovation have been identified. They range from the lowest, which means that there is little concern and little awareness, through a general awareness, to concern about the personal effects of the innovation, on to concern about the consequences of the innovation, then to a concern with the possibilities of collaboration in implementing the innovation, and finally to the highest stage where the concern is focused on an exploration of the more universal benefits that can be gained from the innovation. Appropriate interventions intended to change teacher practice attend the specific concerns of individual teachers at each stage.

Lieberman (1981) has summarized salient findings of these three projects regarding teacher practice: (1) from the Rand study -- that teachers are motivated by a sense of efficacy; 2) from the CBAM project -- that teachers adapt to change developmentally; and, 3) from the I/D/E/A study -- that teachers want and need training in new ideas and techniques that are information-rich and that provide supports for trying out new techniques in their classrooms.

Definitions

Teacher change can have several meanings, each with different implications for in-service practice. Thus, in the Rand study (Berman & McLaughlin, 1978) and the Concerns-Based Adoption Model (Hall & Loucks, Note 2), where the focus is the institutionalization of a selected innovation, changing teacher practice seems to mean increasing behaviors which facilitate the successful implementation of the innovation. When the focus is a more generalized effort to increase teaching skills, changing teacher practice might mean increasing the teachers' repertoires of teaching models (Joyce & Weil, 1972). Another approach might attempt to change teacher practice through direct intervention to facilitate adult development (Oja, 1980), thereby increasing teacher capacity to perceive, evaluate, and select among alternatives. Others interpret change efforts as self-directed learning of adults and focus on the interaction of individuals with the environment. Knowles (1978) views the responsibility of the change agent as that of providing procedures and resources to facilitate this self-directed learning. Howsam and Houston (1972) advocate training teachers in predetermined competencies.

Practice-Outcome Relationships

In a mock trial sponsored by the National Institute of Education regarding minimum competency testing (Teacher Education Reports, 1981), both pro and con teams agreed that it is unfair to hold teachers responsible for students who fail to learn simply because of lack of motivation. Soar and Soar (Note 6) note that what goes on in the classroom is not the most powerful influence on where a student stands in achievement at the end of the year. They cite references supporting the contention that in order to make reliable decisions about an individual teacher (in terms of student achievement) data from twenty classes would be required. They present impressive arguments against evaluating teachers by measuring the outcomes of their pupils. However, Miller (1981) suggests that in order to facilitate change, teachers need to accept personal responsibility for the current and past low basic skills achievement of their students. Borich (Note 7) describes this as the relative gain model which assumes that if a teacher is doing his or her job well, the teacher's pupils should exhibit more learning than those of a teacher who is not doing his or her job well, i.e., teacher competencies can be directly related to pupil competencies. A recent Australian study (Watts & McGaw, 1980) attests to the international scope of social pressure from employers regarding what they desire the schools to produce in terms of student outcomes. The list of desired personal qualities (positive, willing attitude, cleanliness, neatness, confidence, stability, respect for authority, punctuality, diligence, etc.), is similar to the personal qualities fostered by classroom management efforts (Worsham & Evertson, Note 8) to change teacher practice. The employers' expectations of the basic skills of literacy, numeracy and the ability to communicate also correspond to the major student outcome goals of the classroom management approach.

For the most part, change efforts that focus on management skills of the teacher (Worsham & Evertson, Note 8) appear to regard teaching and learning as the "job" of covering a certain amount of material in a certain amount of time under certain conditions in order to produce the product of acceptable level of class average achievement on specified tests. This perspective provides the simplest, most direct context for researching and directing changing teacher practice. The desired change is greater efficiency on the part of the teacher, i.e., covering more material in less time, at less cost, resulting in improved product, higher class average scores on specified tests. Studies using this approach are generally confined to the basic skills of reading and math in the elementary grades and remedial or low level skill acquisition in older students, although this limitation is seldom emphasized in reporting the success of interventions based on this perspective in achieving "teacher effectiveness."

The process most commonly associated with this approach is to select an exemplar -- a teacher in whose classes the average basic skills achievement score on specific tests is relatively high. The next step is to observe and describe the overt classroom behavior of that exemplar and develop a training model based on the behavioral descriptions. Third is the attempt to get other teachers to adopt or imitate the desired behaviors. When the teacher is thus defined by role as an agent whose actions are assumed to directly affect student performance, the intent becomes to improve student performance by changing the behavior of the teacher. This perception underlies beliefs regarding ways of working with teachers, and includes the provision of activities intended to produce direct, relatively immediate, change in some specific overt behavior which is regarded as cause-effect related to a designated student outcome. Certain assumptions appear to inform this approach: 1) that the goal toward which the teacher behavior is directed is to have the class reach a particular level of skill and knowledge in a fixed period of time, (2) that the evaluation of the effectiveness of the teacher is the average achievement level of the class on a specified task or scale, and, 3) that the purpose of changing teacher practice is to increase efficiency in attaining the goal, i.e., to raise the average score of the class.

This model is often referred to as process-product approach (Elliott, 1980). It is supportive of linear movement of students as groups through the school system and of the social expectation of some at least minimal level uniformity of outcomes in graduates of the system.

This configuration of a teacher and a group of students of approximately the same age is, according to Dunkin and Biddle (1974), surprisingly invariant across the United States. And, they contend, most pupils seem to learn to read and cipher under a teacher who is given the responsibility of "intriguing, cajoling, or threatening" them into knowledge. The process-product approach to changing teaching practice seems well suited to this classroom reality. Researchers using this approach attempt to correlate specific behaviors with certain desirable outcomes in student achievement. Those behaviors are identified with teacher effectiveness, a cause-effect relationship between teaching and learning is assumed, and from this rules for teacher training are formulated. Since this process-product model rests on the assumption that the correct treatment produces the desired effect, the teacher can be held responsible not only for exhibiting specified behaviors but also for the student achievement as the specific outcome related to the prescribed behavior.

Borich (Note 7) states that a requirement of the process-product model is that both the process behavior of the teacher and the performance behavior of pupils be measured, with pupil outcomes derived directly from teacher behaviors which are derived from the goals and objectives of the training program. A large number of studies have contributed data to support this approach.

A study of fifty-three sixth grade teachers and a subsample of their students (Fox, Peck & Blattstein, Note 9) found systematic-organized classroom behavior by the teacher to be strongly related to student Time-on-Task, and standardized achievement to be affected in a curvilinear fashion by Time-on-Task.

Another study (Peck & Veldman, Note 10) of 165 second and third grade teachers found teacher characteristics which correlated highly with students standardized achievement test score gains to have consistent negative affective impact, suggesting the possibility that the "very values and procedures which tend to maximize the learning of the knowledge and skills tapped by standardized achievement tests may have adverse effects on pupil morale, interest, and long-term dedication to learning in a broad sense" (p. 9).

In the Rand Study teachers' verbal ability was found to have a positive correlation with improved student achievement (Bergman & McLaughlin, 1978).

Using a training model of pretest, inform, organize and guide practice, and posttest, Stallings (Note 11) found that teachers can and do change behavior when given specific feedback on their own behavior and a guided practice period.

Efforts at training teachers to be enthusiastic are underway and studies are being made to support the contention of a strong correlation between teacher enthusiasm and pupil achievement ("Enthusiasm", 1981). Certain actions were identified as part of enthusiastic behavior. These actions were then taught to teachers on the assumption that it would increase their level of enthusiasm. Studies cited were inconclusive in their findings.

Ward and Cash (Note 12) in a process-product informed study, identified specific teaching practices and classroom variables related to increased student achievement for low and medium skilled urban youth. The method for changing teacher practice used in this study was to have teachers observe effective teaching, look at an expert's analysis of their own behavior in the classroom, and seek to bring their own practice into line with that of the effective teachers. Pre and post observations of twenty-five teachers who completed the training focused on changing teacher behavior. No appropriate student achievement data were available and no control group of teachers was observed in the setting. However, the study presents strong evidence suggesting that urban teachers can be trained to improve specific practices. In terms of changing teacher practice, they suggest that teachers "with the greatest difficulties" need conditions where they are encouraged to set more precise and demanding standards for their work and then given the support and technical assistance necessary to try out specific new behaviors.

Factors Affecting Change Efforts

In addition to studies focusing on the initiation of teacher change, there are those such as Johnson and Sloat's (1980) which investigate the maintenance of the change effect. This study of 13 teachers from a rural elementary setting found no measurable behavior change associated with six weeks of giving information or three weeks of instructions on practice but did find substantial changes in teacher practice in the desired direction associated with two weeks of guided practice and two weeks of coded practice. The salient finding, however, was that the rates of all behaviors of interest had returned to their baseline levels at five and twelve month follow-up observations, suggesting that interventions judged to have succeeded on the basis of "end-of-treatment" data might be judged to have failed if follow-up observations were made.

Expanding the Rand Study finding regarding the association between teacher motivation and sense of efficacy, a psychological study (Weiner, 1980) found an association between the perceived cause of a need state and the affective reactions to that need. Anger and negative reactions appear to occur where the cause of the need is perceived as something that could be controlled, while pity and sympathy appear as responses when the cause of the need is perceived as outside the control of the person in need. This may provide a clue to differentiated teacher behaviors, often labeled "prejudice," toward students or groups of students.

Synthesizing findings of a five year research project involving eighteen schools, Goodlad (1975) suggests that successful change efforts are dependent upon an understanding of and impact on the interrelated whole that is the natural system of each school rather than focused on only some isolated component.

Berman and McLaughlin (1978) found that teachers often modify their classroom activities in idiosyncratic ways depending on what they have learned from a project, and that mutual adaptation was the only process leading to teacher change since teachers changed only as they worked to modify a project's design to suit the particular context in which they worked.

Discussing the Rand Study findings, McLaughlin and Marsh (1979) note that while skill-specific training can affect implementation of a project and student outcomes, it does not affect long term project outcomes of teacher change and continuation.

Both the Rand Study and the CBAM research strongly indicate that changing teacher practice is a long term process which must focus on the individual.

The case study of a junior high school change project (Zigarmi, Goldstein, & Rutherford, Note 13) supported these findings. The study found that at the end of two years of intensive and continuous schoolwide implementation effort, 31% of the teachers were either not using the innovations or were having difficulty using it. Three observations were offered as explanations: 1) the focus was on group, not individual needs and concerns of teachers; 2) change may be aided but not forced, and the more complex the change the more time is needed for the process; and, 3) the teachers in this study were not told what behaviors were expected of them and teachers need to know what behaviors are expected in order for change to occur.

Lacefield and Mahan (1980), using a cognitive dissonance model, found attitude change in teachers to be a function of the level or intensity and duration of perceived dissonance. They found that in-service teachers move toward the underlying values or "philosophies" of their employing school, supporting the findings of other studies regarding the influence of context on the individual.

Miller and Wolf (1979) noted teacher change in terms of development from individual to organizational concerns and developed the cyclical Staff Development/School Change Model focusing on the interdependent relationship between school change and teacher change.

Czajkowski and Patterson (1980) present a schema or framework for change which they feel takes into consideration the idiosyncracies of a school culture. The cross matching model considers the state of the change (initiation, development, implementation), and the strategy (power, influence, reason) for implementing the change. Each of the factors can be matched with each of the other to derive an idiosyncratic profile for a specific school.

Developmental Model

When the teacher is viewed as an individual whose level of development both informs and constrains practice, the focus of change efforts is on movement to "higher"stages. An underlying assumption of this developmental model is that it is useless to merely provide teachers with ever increasing information and specific training in given models, skills, techniques, or competencies without concomitantly increasing their ability to effectively translate that information or skill into improved educational practice. From this view, the desired change is not so much the acquisition of additional skills and information, nor therapeutic treatment for diagnosed deficiencies, as the promotion of development which will, it is assumed, allow teachers to more effectively use acquired skills and knowledge to accommodate the needs of diverse student populations in a complex environment.

During the past two decades attention has turned to changing the ways teachers practice by facilitating their development as adult learners. Harvey, Hunt and Schroder (1961) presented a system for measuring the concept of cognitive complexity and presented the behavioral differences of persons functioning at different levels of development, the implication being that the higher level persons will be able to practice more effectively in the classroom. Hunt and Sullivan (1974) provide support for change efforts with studies showing a level or stage of conceptual functioning not as a permanent personality characteristic but only a preferred mode of functioning at a given time, which can be altered. Knowles (1978) summarized and supported theories of adult learning that attend the unique characteristics of adults rather than extrapolating from studies of the child as a learner. He interprets change efforts from the perspective of what he calls the "assumptions of andragogy" which support change efforts through the interaction of individuals with the environment. Harvey (1966) found results consistent in indicating that the more abstract teachers in the study were more effective in producing desirable classroom atmosphere for their Head Start students.

Rouk (Note 14) points out that three separate studies of teacher effectiveness indicate "The problem for teachers is not so much a lack of good techniques, then, as it is knowing which ones are right for which students under what circumstances," (p. 10). Brophy (1979) concurs that teachers not only need to master particular skills but also need to know when to use them as there do not appear to be any universal teaching competencies that are appropriate in all teaching circumstances.

It appears from available research in the area of development that without intervention most adults stabilize at less than the optimal stages predicated on the various instruments designed to describe, define, or designate levels at which persons may be said to function. Advocates of the developmental model of changing teacher practice believe that it is possible to directly intervene to promote development toward more optimal stages.

Building on the findings and theories of developmentalists, Oja (1980) has developed and tested a program of staff development intended to directly intervene in promoting in-service teachers' growth to higher levels of ego, conceptual and moral development. Oja and Sprinthall (1978) found significant differences on two of three dimensions of developmental growth (moral judgment reasoning and conceptual level) between a group of teachers who participated in the program during the summer and teachers taking typical summer school classes. Although the program did not assure consistent success in the classroom, there were indications that the teachers had broadened their perceptions of their students and increased their own self-analytic skills in reflecting on both success and failure.

Carew and Lightfoot (1979) present data which suggest a mediating power of internal mental processes such as understanding, beliefs and values on the behavior of teachers in the classroom and to the learning of their students. Studying only behavior is insufficient, they assert, because the same behavior can be governed by quite different motives, and conversely, radically different behavior can be governed by the same motives.

Impetus for Change

Sarason (1981) points out that underlying an attempt to introduce a change into the school setting is the assumption that the change is desirable according to some set of values.

The intent of the various approaches to changing teacher practice appears to be consistent: to increase teaching effectiveness. The impetus for change, however, has two very different bases: 1) a desire for something "more" or "better" -- a drive toward what could be; or 2) a need to correct, remediate, "straighten out" a problem -- a judgement and rejection of what is.

Cost-effectiveness, or simply cost, plays a major role in decision making regarding staff development and inservice training. It is not surprising that the emphasis on changing teacher practice has created a market for inexpensive, quick-fix, guaranteed methods, nor that the market is being attended. Even the Association for Supervision and Curriculum Development has published a colorful little sales catalogue, Media for Staff Development, in which fourteen "training packages" covering a variety of topics, are offered with the admonition, "why pay for high-priced consultants when you can hear the leading authorities ... by ordering a tape or film?" (Note 15, p. 1).

Because schools have diffuse, unclear goals, some of which would invite controversy if made explicit, the intents and motives for changing teacher practice are sometimes in operational conflict. Bidwell (1965) points out that it is a bureaucratic necessity that the individual teacher's practice be coordinated with others in such a way as to allow students to move through the school system as groups and end up as a fairly uniform minimal standard class. He suggests that the intrinsic nature of the teacher as teacher runs counter to this, so that the teacher is forced to violate his or her own rules of performance in order to perform adequately as an employee.

Problems and Questions

There are many problems associated with the concept of intervening to change teacher practice, and even more questions.

There is the problem of aggregate effects. For example, if teachers "change" developmentally through discrete stages of concerns and levels of use (Hall & Loucks, 1978) in relation to each innovation introduced, and if each teacher's rate of change is individual, then it is possible that the introduction of numerous innovations simultaneously or even over a relatively long period will produce an overlapping overload with teachers functioning in many, maybe all, of the CBAM stages and levels, a different stage and level for each innovation, resulting in aggregate effects not predictable nor attributable to any specific innovation and not identified by the CBAM instruments.

A recent study by the Rand Corporation (Kimbrough & Hill, Note 16) may well have implications for research on changing teacher practice far beyond the scope and size of the project. The purpose of the study was to find out what was happening when federal and state requirements, each originating and being administered separately at levels above the local school, required simultaneous and integrated implementation at the school and class level. In contrast to multitudinous studies limited to the effects of specific innovations and interventions, this study investigated aggregate effects. Three of the findings seem particularly significant.

First, in some schools children are pulled out of class for categorical programs so frequently that the teacher has the total class for only 1½ hours daily, and is unable to implement the state mandated educational curriculum. Second, in several districts core and categorical programs used incompatible reading methods and instructional materials, forcing teachers to abandon their lesson plans in order to help federal program beneficiary children adjust to the differences in teaching methods. And third, administrative burdens were imposed on teachers to the extent that they were forced to neglect teaching responsibilities. In some districts, teachers spend so much time developing Individualized Educational Plans for students served by P.L. 94-192, or charting the progress of Title I or bilingual students, that they have to reduce time spent in actual instruction. These aggregate effects of interruption or interference of one element with another in the teaching context, of requirements to simultaneously implement conflicting or clashing methods, materials, or programs, and of the expansion of duties and responsibilities beyond time constraints, are crucial to the practitioner but cannot be predicted nor detected through research investigation of an isolated component of teaching practice.

There is the problem of unanticipated effects of any specific change effort. Inservice training models aimed at getting teachers to exhibit certain specific behaviors, however valuable according to some set of values or criteria, may simultaneously condition them to look externally for "right" answers with which to handle uncertainty and decision-making, to "cook-book" class activity and interaction with students, or to regard the teacher's responsibility only as adherence to approved methods and materials. "Adult development" models, on the other hand, may "move" teachers into a stage where they reject externally imposed rules even when their own knowledge base is insufficient for generating and selecting among alternatives.

There is the problem of simplification and overgeneralization of research findings. For example, Glickman (1981) incorporates differing theoretical views into a practical model of staff development calling for individuality with social responsibility - "Developmental Supervision" - intended to guide change agents in assuring that teachers continue to "change and grow."

There is the problem of social context. Changing teacher practice is a part of the larger process of educational change and is impacted by the problems of the latter. A report for the Center for Educational Research and Innovation (Harmon, Note 1) presents three major problems in planning for educational change: the need to balance economic resources, the demands of society, and the needs of the individual. Changing teacher practice appears to involve policy, district characteristics, student characteristics, building level influences, concern and change facilitating behaviors of the principal.

There is the problem of conflicting objectives. Bidwell (1965), describing the public school in its service function as an arm of the state, suggests that the "intrinsic nature of the teacher runs counter to the bureaucratic principle of school organization and that, paradoxically, to perform adequately in his office the teacher is forced to violate the rules of performance" (p. 979). Grace (1978) found the definition or criteria for identifying an effective teacher to be constituted simultaneously in the ideological and functional senses, i.e., according to some generalized concept of a "good" teacher and according to what needed to be done in the specific work situation. Teacher resolution of the conflict between the demands of the legitimized ideology and the work imperatives, apparently, he concluded, required the avoidance of critical reflection regarding their own activities, in spite of inservice change efforts which encourage such a critical stance.

There is the problem of resistance. When teachers are caught between the pushes and pulls of school efforts to operate within economic constraints, to meet changing societal demands, and to maintain philosophical commitments, they often develop a sort of patchwork functioning which combines several different forms of belief and practice. This allows them to respond to the fluctuating pressures but produces an uneasy equilibrium which militates against change efforts that focus only on one factor in the totality of the teaching context. They are reluctant to risk losing a behavior that at least "works," for one that is untried. The Rand Study

(Berman & McLaughlin, 1978) found that teachers with many years on the job were less likely to change their practices. Delahanty (1978) notes, that teachers fear risks that are often unaccompanied by convincing prospects of success, especially where failure is likely to be attributed to the teachers, and success, if it occurs, to the change intervention. Mann (1976) points out that introduction of the change effort is frequently an indictment of existing practice and of the practitioner. The reality of the risk involved in changing teacher practice is underscored by the fact that no class of educational treatments has been found that consistently leads to improved student outcomes when variations in the institutional setting and nonschool factors are taken into account (Berman & McLaughlin, 1978).

Another problem is that there is little attention paid to the concept of regressive change and its evolution in terms of the relationship between the teacher and the school. Lacefield and Mahan (1980) found that teachers change in the direction of the values of the employing school. Would a teacher placed in a narrow, rigid, repressive school become more narrow, rigid, and repressive? The Rand study (Berman & McLaughlin, 1978) found that teachers were unlikely to continue even successful project methods which they had assimilated without the approval of the principal. "To do so would not only be difficult in light of the sometimes subtle, sometimes blunt means that principals often employ to establish a uniform 'school style,' but also would appear contrary to professional self-interest" (p. 31).

Lack of clarity and differing if not conflicting orientations present another problem. Sarason (1971) points out that it is characteristic of the modal process of change in the school culture that the intended outcome is rarely stated clearly, and if it is stated clearly, by the end of the change process it has managed to get lost. Howsam and Houston (1972) view competency-based education as the thrust necessary for adaptation to meet the challenge of a changed and changing society. Martin (1979) concludes that teachers need to be flexible - perhaps the single word most associated in research with effective teaching. Fullan and Pomfret (1977) conclude that effective implementation of educational changes which require role changes will not occur without longer time perspectives, more small-scale intensive projects, more resources, and time and mechanisms for contact among would-be implementers, yet commercially packaged programs promise cheap and fast assured change and some research studies seek to identify "change" over a two and three week time period.

Conclusions

There is much current questioning throughout the educational system regarding what is being done and its relationship to students' life goals and to societal needs (Mulhern, 1978), impacting on change effort intents. There is diversity in research findings. There are many questions regarding what can be done as well as what should be done through change efforts. Can teacher characteristics be modified? Can their development as adults be intentionally promoted along desired lines? Can teacher competency be enhanced and maintained through direct instruction in specific skills? What modifications of teacher practice are most conducive to increasing teacher effectiveness in meeting the needs of diverse student populations and in being responsive to the bureaucratic demands of the educational system? What strategies best facilitate this modification?

There is a need to integrate and expand. That teacher behavior affects what happens in the classroom has been adequately proven. Further efforts toward this end would produce results as useful as that presented in a newspaper comic showing the pompous-looking chairman at a cost of living council meeting announcing, "after a 2-year study, we've concluded that the cost of living is directly affected by prices." There now exists a strong diverse research-produced information base regarding changing teacher practice. The Rand Study, the I/D/E/A work, the Concerns-Based Adoption Model project, reinforced by many studies, and the work of the developmentalists and those researching process-product relationships between teacher practice and student outcomes, provide sufficient and significant data for generating a multitude of testable hypotheses. What appears to be happening, however, is that researchers select one area of focus, whether it be the implementation of an innovation, specific skill training, generalized adult development, or changes in the organizational structure of the system, and attempt to identify correlational and/or cause-effect relationships; while principals and teachers seek to juggle simultaneously all of the above and more in an inherently indivisible continuous experience. Perhaps it would now be worthwhile in guiding and improving educational practice to widen the perspective of changing teacher practice by juxtaposing findings from the various approaches and creating a more comprehensive conceptualization of the process of changing teacher practice.

This juxtaposition would allow for the construction of hypotheses which take into account aggregate effects within the reality of teaching practice -- outcomes, both negative and positive, that were not intended nor produced by any one of the separate factors within the situation, but which resulted from the synergetic combination of some or all of the perceived components, or the entropic dissipation resulting from lack of energy input. Specific questions such as "how to raise the average score" on specific tests might then be expanded to "at what cost to other outcomes and with what unintended effects does this process produce gain in class average score" on specified tests?

The fact of mutual adaption and the lack of predictability and control over the nature and magnitude of effects suggest the need for researchers and practitioners to work jointly in discovering generalizations and constructing a framework for bringing about change. There is a need for a theory involving concepts that increase predictability and control of change efforts. Chin and Downey (1973) suggest, in fact, that the study of changing behavior deliberately is already emerging as a discipline in its own right with concepts of change informing efforts to induce change.

In practical terms what is needed is a successful way of improving teacher practice. Given the present state of knowledge and practice regarding change strategies, it appears that a promising approach to a study of the possibilities of altering teacher behavior is a weighted matrix design utilizing findings from models of adult development and process-product orientation. The inclusion of multiple factors facilitates generalization; weighting of factors permits situation-specific application. Change can be viewed from three perspectives: 1) acquisition, the increase of information and skills possessed by the teacher; 2) remediation, the redirection and improvement of behaviors evinced by the teacher, and, 3) development, the expansion and progression of the functioning capability of the teacher. Since change in teacher practice occurs within an institutional context, any successful program of change must attend to impinging organizational and/or bureaucratic factors. The matrix design would include these factors. Deliberate intervention in order to bring about change in teacher practice presupposes some end-in-view toward which the change effort is directed. Again, the matrix design would allow consideration of the various factors in terms of the end-in-view. Such a weighted matrix could serve as a universal or normative system of change in which "exceptions" can be viewed as perturbations predicative of and leading to the identification of additional factors affecting change rather than being reported, as is often done, as unexplained anomalies.

By attending simultaneously to the multiple factors identified in different research approaches and to the conflicting nature of the demands upon teachers within the holistic process of teaching, it may be possible to develop a theoretical conceptual framework matrix within which researchers and practitioners can work jointly to facilitate clarification of the intent of efforts to change teacher practice, to increase the level of predictability of effects of specific change efforts, and to better direct and control the nature and magnitude of change in teacher practice.

A Suggestion

Given the ample data base from which to generate testable hypotheses, and the need for an effective generalizable system for changing teacher practice, an appropriate next step might well be the development of a study intended to identify a system by which personnel in any school setting could 1) increase their own conceptual clarity about their present situation and the intent of change efforts, 2) discover and/or construct appropriate alternatives for achieving desired changes, 3) continuously monitor and evaluate effects of interventions, and 4) modify the change efforts accordingly.

Such a study should be a collaborative effort between researchers and practitioners in which the researchers provide data from previous studies and the practitioners provide data from the setting of the study; in which researchers provide conceptual structures and practitioners provide situation specific content for informing the change effort; in which both researchers and practitioners develop hypotheses, analyze findings, and draw conclusions; in which the researchers help the practitioners to make more explicit the intent of the change effort and the practitioners help the researchers to make more explicit the nature of the change process. This approach has similar properties to the Interactive Research and Development on teaching study (Tikunoff, Ward, and Griffin, 1979).

Using multiple, widely varying sites and incorporating data from the various approaches to the study of changing teacher practice should make possible the attending of both site specific variables and the processes that are generalizable across sites. Taking into account the context in which the teaching practice occurs, the characteristics of the individuals involved, and the process by which change is induced should facilitate the identification of a generalizable system for effecting change in teacher practice.

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OVERHEADS SESSION - B

San Diego City Schools
POSITIVE TEACHER BEHAVIORS

*Observation checklist:

B. Presentation of the lesson:

Teacher

1) gives/seeks rationale for lesson_________
2) presents new information or content______
3) refers to previous lesson content________
4) uses materials______
    a. kinds_____
    b. supply____
    c. corrections made_____
5) divides complex tasks into steps________
6) gives demonstration________
7) uses concrete examples_____
8) makes comparisons______
9) points out patterns_____
10) uses experience related to students interests_____
11) gives direction_____
12) relates new activity to previous or future activity_____

D. Practice:

Teacher

1) conducts practice over new (or old) materials in whole group____
2) checks students responses for correctness_____
3) provides feedback_____
4) moves around classroom_____
5) reminds students they should be working or participating_____
6) reminds students that work will be checked______

*Excerpted from Barnes Teacher Observation Instrument

POSITIVE TEACHER BEHAVIORS

*Observation checklist:

G. Organizes classroom:
    1) allocates time to teach rules and procedures_____
    2) states, posts, or writes rules and procedures_____

H. Presentation of rules and procedures:
Teacher
    1) provides/seeks a rationale for rules and procedures_____
    2) communicates to students desired attitude_____
    3) communicates to students desired behavior_____
    4) introduces groups of rules and procedures at different times_____
    5) explains rules and procedures in concrete terms_____
    6) demonstrates rules and procedures_____
    7) breaks complex rules and procedures into steps_____
    8) explains cues associated with rules and procedures_____
    9) demonstrates cues_____
    10) has students practice rules and procedures_____
    11) gives feedback on students' performance_____
    12) reteaches rules and procedures_____
    13) communicates consequences to students_____
    14) uses materials_____
        a. variety_____
        b. adequate supply_____
        c. complete and correct_____

I. Rules and procedures:
Teacher
    1) observes students' behavior_____
    2) uses rules and procedures for use of materials/areas_____
        a. using learning centers_____
        b. using shared materials, cabinets_____
        c. using drinking fountain/sink_____
        d. using pencil sharpener_____
        e. using bathrooms_____
        f. passing out books and supplies_____

3) rules and procedures for discussion_____
   - a. participating in class discussion_____
   - b. restricting talk among students during academic presentation__
   - c. restricting talk among students during seatwork_____
   - d. talking among students during free time_____

4) rules and procedures for movement_____
   - a. moving into and out of groups_____

5) rules and procedures for assignments_____
   - a. getting teacher's attention for help_____
   - b. activities after seatwork is finished_____

6) uses rules and procedures for cueing students' attention_____

J. Reactions to student behavior:

Teacher

1) reacts to students not following rules and procedures_____
2) reacts to students following rules and procedures_____
3) uses consequences for inappropriate behavior_____
4) uses consequences for appropriate behavior_____

*Excerpted from Barnes Teacher Observation Instrument

CASE STUDY "B"

NEEDS:

MEANS:

SESSION C

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session C - four hours

PURPOSE

This session will continue to build on the participants' ability to identify and implement more effective teaching behaviors.

Change strategies research and knowledge base will be introduced emphasizing "The Peer Group Strategy." Small group simulation will take place followed by small and large group discussions.

Participants will:

1. interact with peers about teaching and schooling
2. define and implement the concept of positive observation and feedback
3. learn a knowledge base of change
4. apply "The Peer Group Strategy" through a small group simulation

HANDOUTS:

C-1 Agenda
C-2 Focus worksheet
C-3 Observation sheet
C-4 Classroom narrative
C-5 Simulation sheet
C-6 "What would you do if?"

Continue with Planning Workbook A-11

OVERHEADS:

C-1 Staff Development Strategies
C-2 I/D/E/A
C-3 The Peer Group Strategy
C-4 Assumptions
C-5 Features
C-6 Activities
C-7 Anticipated Outcomes

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session C - four hours

SAMPLE AGENDA

First Hour	Review of Sessions I and II
	Opportunity to interact about teaching and schooling
	Objectives and rationale for today's meeting
	Introduction to effective observation techniques
Second Hour	Identification of positive teaching behaviors
	1. use of narrative - code
	2. view videotape - code
	3. discuss completed observation forms
	BREAK
Third Hour	Change Strategies
	● I/D/E/A
	● Peer Group Strategy
	● The Rand Study
Fourth Hour	Peer Group Strategy simulation
	● discussion of simulation
	● planning time

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session C - four hours

FIRST HOUR	Review of Session I and II
Agenda and Instructions	Welcome back to Session C (3) of the Focus on Effective Teaching/Staff Development program. This is the third of five session.
Allow 10 minutes	At your table you will find two sheets of paper. One is the agenda; the second is a worksheet for you to complete at this time which should help each of us to focus in on our first objective.
Hand-Out C-1, C-2	Allow 5 minutes
to complete activity	Before we discuss this activity, who can share what positive teaching behavior that activity represents?
At this point in the training it is important to build into the sessions opportunities for participants to "interact about teaching and schooling." This can be done in a number of ways.	1. refers to previous lesson content 2. uses materials 3. provides evidence that teachers and staff developers do make a difference Allow time for additional comments and responses. One of the benefits of this worksheet (C-3) is to focus on activities that you already do--emphasizing their staff development value and encouraging their duplication.
1. Co-presenter who shares staff development plans and activities at his/her site.	Ask volunteers to share some of the activities they have been doing at their sites and encourage them to explain how their program is unique (i.e., has been adapted to characteristics of site and users).
2. Small group discussion.	Let's do a quick review of the effective teacher and effective staff developer behaviors.
Break down into smaller groups and share successful practices. Report to total group.	After the small groups have listed the behaviors and shared in the large group, remind the participants of the value of review at the beginning of any lesson. Review: According to Good and Grouws, p. 21, "Children (and adults) forget. It is imperative that ideas be reviewed and skills maintained on a systematic basis.

3. Round Table-sharing what activity has been tried since last meeting.	Skills must be practiced with regularity in order that a high rate of proficiency be maintained" (Good & Grouws, 1977).
Allow 20 minutes	
Special Directions for Teacher	Small group activity--Blank paper for each group. Break participants into groups of 5. In a quick five minute brain storming session, have them list as many effective teaching behaviors as the group can.
Allow 15 minutes	Compare groups to see which had the most.
SECOND HOUR	Observation techniques"
Hand-Outs C-3-1, C-3-2	In our previous session, we viewed a videotape of the first day of school. The tape showed a teacher practicing many positive behaviors as listed on the right side of the Barnes instrument--classroom organization and management. Today we are going to more thoroughly familiarize ourselves with two of the major behaviors listed on the left side of the instrument--lesson presentation and practice. For review, let's share examples of each of the behaviors under Lesson presentation B-1-12 and Practice D -1-6.
Quickly solicit examples of each.	Classroom Observations for instructional support should occur only after some other activities are in place: 1. teachers are aware of the principal's high priority for instructional improvement 2. a strong sense of trust and personal caring have been established 3. teachers have been inserviced in the effective teaching behaviors so that they know what the observer is looking for 4. objective feedback is given to the teacher 5. a provision is made for the administrator and teacher to discuss the lesson and share ideas and concerns

	6. Remember: Some days are better than other--if a lesson goes poorly and the teacher says "This wasn't my day" give that person an opportunity to try again. The observer is looking for the best teaching, in order to build on those positive behaviors
	Once those prerequisites have been established, the classroom observation can take place.
Hand-Out C-4 Classroom Narrative	Following the precepts of good teaching, we are going to complete an activity to check our understanding of the application of observation techniques.
	The narrative you have is of a seventh grade math class. Using your observation checklist as a reference read the narrative line by line marking in the left hand margin - the positive teaching behavior.
Read each line asking for appropriate behavior.	Let's do the first three lines together. Some of the behaviors we have to infer, for example, "The teacher is waiting." How did you determine which behavior that describes? (I1, H8, B3)
Allow 10 minutes to complete the activity.	At the end of the allotted time, check answers on narrative sheet cueing participants for all answers.
Discussion: Additional 5 minutes	In some ways the narrative is harder to code than a videotape, which is, in turn, more difficult than a classroom. A classroom allows for all the nuances, responses and planning inherent in each lesson to come forward. A videotape and even more so a narrative limits an observer's view of a teacher and a classroom. But they are good practice.
Code C-3	
Show 15 minutes of videotape	Using sections B and D of the Barnes instrument, code the videotape noting as many positive behaviors as possible.
Grade 7 Language Lesson	This videotape was taped in a seventh grade English class. We are looking for as many positive teaching as we can find.
Allow 10 minutes to discuss completed observations	(Videotape depicting positive teaching behaviors as listed on Barnes instrument, sections B and D, should be produced in local district to facilitate sensitivity to the context.)
	BREAK

THIRD HOUR

Knowledge Base of Change Strategies

The whole concept of staff development is based on the assumption that every person can improve. This improvement needs to be directed, supported and promoted by the staff developer.

"Schools are not schools unless change is occurring" (John Gardner). The change we are talking about is what Madeline Hunter calls "instructional improvement--the support, expertise and encouragement of the site administrator to improve the classroom practice of all teachers."

Read pp. 6-12

The following few minutes of script are taken directly from "Changing Teacher Practice: A Synthesis of Relevant Research," Sara Edwards, Research and Development Center for Teacher Education at The University of Texas at Austin, 1981.

Overheads C-1, C-2, C-3

These pages give an excellent overview of various strategies on the improvement of teacher practice:

Knowledge Base

Three widely and frequently cited efforts provide extensive data regarding changing teacher practice: (1) The Rand Corporation study of federal programs supporting educational change (Berman & McLaughlin, 1978); (2) the I/D/E/A five-year study of change in individual schools (Bentzen, 1974); and, (3) the Concerns-Based Adoption Model (CBAM) work on the implementation of innovations (Hall & Loucks, 1975).

The I/D/E/A Study

The findings of the five-year Study of Educational Change and School Improvement (SECSI) conducted by the Institute for Development of Educational Activities, Inc. (I/D/E/A) are the basis of significant intensive, clinical training for teachers and administrators. The central thesis of this study is that adults in schools must learn to help themselves. This means, according to Goodlad (1974), "that they must think together, plan together, decide together, and act together in dealing with problems inevitably inherent in schools" (p. XIII). And they need help, support, and encouragement in doing so.

The intent of the SECSI project was to effect and to study change in the schools. Eighteen elementary and secondary schools were joined in a self-help League of Cooperating Schools with SECSI staff serving as helpers, supporters and encouragers in an attempt to effect change. The study component revolved around understanding a school staff's openness to change. The study found that individually competent teachers put together in a school will not automatically be a group or staff that copes positively with changing demands on the school. Self-renewing schools were the product of a group enterprise. The basis of the SECSI intervention was the development of peer groups of schools. The basis of its study was the measurement of the DDAE process as an indication of the level of staff receptivity to change. The "level" of the process was determined by four characteristics: scope, importance, relevance, and flexibility.

The earliest findings of the study confirmed that teaching "tends to be lonely, often dull, work ringed about by fears of the unknown that might result from changes" (Bentzen, 1974, p. 195). The study also found that increased interaction among schools helped alleviate the loneliness, dullness and fear. Staffs within the League Network were more willing to try something new because peers encouraged rather then censured when a staff experienced failure.

Information from the study suggested that League schools came to hold certain expectations for the group and for themselves as League members. "League staff were supposed to hold relatively non-traditional views about schooling; League staff were supposed to look critically at what they were doing" (Bentzen, 1974, p. 197). Though not all schools met them, the expectations were there.

The study also suggests the difficulty of changing the interventionists' perception of what they should and should not do. "School staff have been treated by interventionists with condescension, pity, scorn, and despair, but rarely with dignity" (Bentzen, 1974, p. 201).

The SECSI study proposes peer group strategy as a means of effective change. The idea is that the intervention will build and maintain group expectations and that the school staffs will, in turn, pressure their individual members to change in the desired direction.

While the study certainly supports the value of this strategy, it does not presume to generalize to all situations and is the only intervention strategy that should be used in schools.

The Rand Study

The four-year, two-phase Rand study provided survey data on 293 change-agent projects, and intensive case analysis of 29 projects (Berman & McLaughlin, 1978). The findings strongly suggest the importance of the role of the teacher in the change process and indicate the significance of site-to-project effects in the process of mutual adaptation of the school and the intervention.

The study analyzed the effects of specific federal policies on local change processes. The first phase focused on strategies and conditions promoting change in the schools; the second phase focused on factors influencing the sustaining of change.

Using findings from both phases, the study described the local process of change in regard to initiating and sustaining innovative projects. The study found that few school districts in the sample group actually conducted a rational search for better ways to educate students. Rather, the selection process was more a "complex interplay among organizational forces, political pressures, personal motivations, and educational concerns" (Berman & McLaughlin, 1978, p. 14).

The study found that each classroom, each school and each school system implemented a given innovation in different ways, and that in the innovation and the characteristics of the setting were changed. This process, termed mutal adaptation, resulted in a variety of adjustments to the project and in the acquisition of new attitudes and behaviors by the staff implementing the project, as the persons involved tried to make the project work for them in their own settings. Although the process of mutual adaptation did not assure the successful implementation of a project, it did increase the likelihood of that success. And, a crucial point to consider in changing teaching practice, the study found mutual adaptation to be the only implementation process leading to teacher change because the teachers changed only as they adapted the project's design to their own particular situation.

Study findings emphasize the fact that there is no single factor that guarantees successful education change. What happens with a change effort depends on the interplay of the characteristics of both the change intervention and the setting to be changed.

Classroom organization projects and projects designed to include community involvement appeared to have a direct effect on promoting change in teacher practice. The cost of the project did not appear to be a factor in eliciting teacher change. Data from the study indicates that teachers rise to challenges, responding more positively to ambitious and demanding innovations than to mundane or routine projects. However, a more ambitious scope of a project did not automatically assure success. Projects that were more comprehensive (including many schools and most grades) tended to be less likely to produce teacher change. Teachers with many years on the job were found to be less likely to change their own practice.

One factor, however, did show a strong, positive relationship to all of the project outcome measures: a teacher's belief that the teacher can be of help to all students. The study referred to this belief characteristic as a "sense of efficacy" which represented the teachers' attitudes about their own professional competence.

The Rand research indicates that local staff development activities could significantly improve teacher practice. But the study underscores the importance of mutual adaptation and the influence of factors and characteristics of the local setting. Packaged and rigid training programs are contraindicated, as is an unthinking, uncritical adherence to generalizations. Berman and McLaughlin point out that even some strategies which were clearly indicated by the study usually to be ineffective "due to their mismatch with a typical reality of school district life and with the dominant motivations and needs of teachers" (Berman & McLaughlin, 1978, p. 27) could be useful in atypical instances.

The Concerns-Based Adoption Model

The Concerns-Based Adoption Model (CBAM) provides a structure for staff development planning which focuses on the process of change as a personal experience (Hall & Loucks, 1978; Hall & Loucks, Note 2). The perceptions, feelings, motivations, frustrations, and satisfactions of teachers about an innovation are identified and classified according to a developmental scheme of stages. The process of change by which a person moves through these stages is attended to so that an innovation can be implemented. Concern-based staff development recognizes and accepts as legitimate the concerns of the persons involved in the change process. Change is regarded as long term and developmental, and individuals are perceived to need support as they experience change. In this model any process or product that the teacher has not previously encountered is regarded as an innovation for that teacher.

Seven stages of concern through which individuals pass with regard to any innovation have been identified. They range from the lowest, which means that there is little concern and little awareness, though a general awareness, to concern about the personal effects of the innovation, on to concern about the consequences of the innovation, then to a concern with the possibilities of collaboration in implementing the innovation, and finally to the highest stage where the concern is focused on an exploration of the more universal benefits that can be gained from the innovation. Appropriate interventions intended to change teacher practice attend the specific concerns of individual teachers at each stage.

Lieberman (1981) has summarized salient findings of these three projects regarding teacher practice: (1) from the Rand study--that teachers are motivated by a sense of efficacy; (2) from the CBAM project--that teachers are adept to change developmentally; and, (3) from the I/D/E/A study--that teachers want and need training in new ideas and techniques that are information rich and that provide supports for trying out new techniques in their classrooms.

Definitions

Teacher change can have several meanings, each with different implications for inservice practice. Thus, in the Rand Study (Berman & McLaughlin, 1978) and the Concerns-Based Adoption Model (Hall & Loucks, Note 2), where the focus is the institutionalization of a selected innovation, changing teacher practice seems to mean increasing behaviors which facilitate the successful implementation of the innovation. When the focus is a more generalized effort to increase teaching skills, changing teacher practice might mean increasing the teachers' repertoires of teaching models (Joyce & Weil, 1972). Another approach might attempt to change teacher practice through direct intervention to facilitate adult development (Oja, 1980), thereby increasing teacher capacity to perceive, evaluate, and select among alternatives. Others interpret change efforts as a self-directed learning of adults and focus on the interaction of individuals with the environment. Knowles (1978) views the responsibility of the change agent as that of providing procedures and resources to facilitate this self-directed learning. Howsam and Houston (1972) advocate training teachers in predetermined competencies.

FOURTH HOUR	Peer Group Strategy
	Before change at a site can occur, one must understand a school staff's receptivity to change.
I/D/E/A-Institute for Development of Educational Activities, Inc.	The I/D/E/A Study "identified a set of behaviors as the process by which all staff consider change or reject it." This process of dialogue, decision making, action and evaluation (DDAE) reflected the school's openness to change" (Edwards, 1981). Schools which John Goodlad calls self-renewing are the product of group enterprise.
Overhead C-4	Review Assumptions as listed on Peer Group Strategy overhead C-4. Discuss
Overhead C-5	Review Features Discuss
Overhead C-6	Revice Activities Discuss
Overhead C-7	Review Anticipated Outcomes Discuss
Directions: 1. Distribute Hand-Out C-5	The final activity today will be a simulation of the Peer Group Strategy process--or DDAE.
2. Walk through the steps with the total group 3. Divide total group into small group of 5-7 each	This simulation was appropriate for a particular school district in 1983. It is easy to substitute a change about to occur with the participants and follow the process.
4. Allow 20 minutes for simulation	
5. Allow 10 minutes for total group discussion	Setting: A change has been proposed by the district--it would be helpful to the staff developer to see how receptive the staff is to this change in order to prepare the appropriate intervention.

Allow 20 minutes — Following the guidelines provided (Hand-Out C-5), have each small group simulate the activity. An action plan as well as an evaluation design may be proposed, following the decision making process.

Allow 10 minutes — Return to large group. Share action plans.

Discussion Topics Following the Simulation:

1. During the dialogue what positive behaviors were occurring?

2. What do you think can be done to make the simulation more meaningful?

3. How did it work for your group?

4. What would you do differently?

5. What site problems do you feel would make appropriate topics for the simulation of this strategy?

Hand-Out C-6 — When attempting this process at your site, it may be helpful if some of the problems were anticipated. Brainstorm items 1-4.

Continue with Planning Workbook A-11.

HANDOUTS SESSION - C

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session C - four hours

SAMPLE AGENDA

First Hour	Review of Sessions I and II
	Opportunity to interact about teaching and schooling
	Objectives and rationale for today's meeting
	Introduction to effective observation techniques
Second Hour	Identification of positive teaching behaviors
	1. use of narrative - code
	2. view videotape - code
	3. discuss completed observation forms
	BREAK
Third Hour	Change Strategies
	● I/D/E/A
	● Peer Group Strategy
	● The Rand Study
Fourth Hour	Peer Group Strategy simulation
	● discussion of simulation
	● planning time

H.O. #C-2

FOCUSING ACTIVITY

In order to structure some time for reflection and analysis of your staff development behavior, please read this before the meeting begins:

1. What effective teaching topics did I discuss with my staff prior to the opening of school?

_____ classroom management and organization

_____ presentation of the lesson

_____ homework

_____ planning

_____ teaching rules and procedures

_____ student - teacher interaction

_____ holding students responsible for behavior

_____ other (please explain)

____

____

2. What techniques did I utilize as a staff developer to affect change?

_____ diagnosed regularities

_____ provided for peer observation

_____ Provided time to discuss teaching and schooling

_____ provided planning time

_____ communicated expectations clearly

_____ provided assistance (in-class, in school, or district)

_____ interacted in positive way

_____ provided evidence that teachers made a difference

_____ provided effective teaching research

_____ observed and provided feedback

_____ other (please explain)

____

____

San Diego City Schools
POSITIVE TEACHER BEHAVIORS

*Observation checklist:

B. Presentation of the lesson:

Teacher

1) gives/seeks rationale for lesson_________
2) presents new information or content______
3) refers to previous lesson content________
4) uses materials______
    a. kinds_____
    b. supply_____
    c. corrections made_____
5) divides complex tasks into steps________
6) gives demonstration________
7) uses concrete examples_____
8) makes comparisons______
9) points out patterns_____
10) uses experience related to students interests_____
11) gives direction_____
12) relates new activity to previous or future activity_____

D. Practice:

Teacher

1) conducts practice over new (or old) materials in whole group____
2) checks students responses for correctness_____
3) provides feedback_____
4) moves around classroom_____
5) reminds students they should be working or participating_____
6) reminds students that work will be checked______

*Excerpted from Barnes Teacher Observation Instrument

POSITIVE TEACHER BEHAVIORS

*Observation checklist:

G. Organizes classroom:

    1) allocates time to teach rules and procedures_____
    2) states, posts, or writes rules and procedures_____

H. Presentation of rules and procedures:

Teacher

    1) provides/seeks a rationale for rules and procedures_____
    2) communicates to students desired attitude_____
    3) communicates to students desired behavior_____
    4) introduces groups of rules and procedures at different times_____
    5) explains rules and procedures in concrete terms_____
    6) demonstrates rules and procedures_____
    7) breaks complex rules and procedures into steps_____
    8) explains cues associated with rules and procedures_____
    9) demonstrates cues_____
    10) has students practice rules and procedures_____
    11) gives feedback on students' performance_____
    12) reteaches rules and procedures_____
    13) communicates consequences to students_____
    14) uses materials_____
        a. variety_____
        b. adequate supply_____
        c. complete and correct_____

I. Rules and procedures:

Teacher

    1) observes students' behavior_____
    2) uses rules and procedures for use of materials/areas_____
        a. using learning centers_____
        b. using shared materials, cabinets_____
        c. using drinking fountain/sink_____
        d. using pencil sharpener_____
        e. using bathrooms_____
        f. passing out books and supplies_____

3) rules and procedures for discussion_____
   a. participating in class discussion_____
   b. restricting talk among students during academic presentation__
   c. restricting talk among students during seatwork_____
   d. talking among students during free time_____
4) rules and procedures for movement_____
   a. moving into and out of groups_____
5) rules and procedures for assignments_____
   a. getting teacher's attention for help_____
   b. activities after seatwork is finished_____
6) uses rules and procedures for cueing students' attention_____

J. Reactions to student behavior:

Teacher

1) reacts to students not following rules and procedures_____
2) reacts to students following rules and procedures_____
3) uses consequences for inappropriate behavior_____
4) uses consequences for appropriate behavior_____

*Excerpted from Barnes Teacher Observation Instrument

CLASSROOM NARRATIVE*

Grade 7

Subject: Math

Students enter classroom turning in their homework at the table near the door and proceed to their seats. The T now walks to the front of the room and stands. The room begins to get quieter. The T is waiting. She says "Yesterday, we were doing. . ." She begins an explanation for the math lesson. She says "Today we're going to do problems with answers like 4,500." And she writes this on the blackboard. She writes 9 x 500 = 4500.

What do you see in this problem that is the same on both sides of the equal sign? (Yes, two zeros). What else do you see?(9 x 5 = 45). Then she writes 6 x 400 = 2400. What is the same on both side of this problem? (two zeros, 6 x 4 - 24). Writes two additional problems, 7 x 600 = 4200 and 3 x 1200 - 3600. What do all of these problems have in common? The T looks around the room; there's some whispers, four hands are held up. The T waits; she says "What would our answer be?" She continues to wait until approximately half the hands are held up. Students offer answers. She recognizes the correctness of the answers. Then she writes 90 x 500 =

60 x 400 =

70 x 600 =

30 x 1200 =

Who can give me the rule here? Steve. Steve answers, "The rule is there are the same number of zeros on each side of the sign". Who can be the detective and give us a clue as to how many zeros are in each one of the answers. Right 3

---

*Adapted from Classroom Narrative T=182, R&D Center, University of Texas, Austin

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one side 3 on the other students come up and complete each problem explaining how they got the answers.

Class you have done a great job. Let's see how many of you are on your toes. I have 5 problems hidden behind the map (map has been pulled down all along). When I pull up the map you are to read the the first problem and when I say "Ready" hold up the number of fingers equal to the number of zeros. For example, - the last problem on the board. Look at it - ready - hold up the correct number of fingers. Class does so some students are slow in holding up fingers. "Let's have everyone get ready for the problem behind the map." Some giggling occurs when the map is retracted but students follow along responding appropriately. O.K. class now we are going to complete the worksheet. She passes out sheets to first students at top of each row who passes sheets along. Seatwork assignment directions are given. Two procedural questions are asked with teacher asking other students to respond.

The T turns to the blackboard and begins writing the instructions for the homework. The instructions are: 'page 132, 1 through 27 (answers only)' and then that she writes 'tables for 24, 26, and 27." Students to settle down to work; the room appears to be quieter. Teacher begins to walk around room monitoring seatwork. Students work quietly with teacher providing assistance to those with hands raised or who appear to be having difficulty. - Class, 2 more minutues. . . . Work is corrected quickly. Students called on to give She notes the homework assignment written on board. Reminds them it will be corrected tomorrow. Bell rings. Students leave.

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FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Peer Group Strategy Simulation

Situation: The new requirement for the Second Language Program is for classroom teachers to assume the responsibility for ESL instruction. The "peer group" at your school is meeting today to determine a strategy for implementing the new requirement.

As a group, please utilize the steps in the peer group strategy to address this issue at your school site.

Directions: Select one group member to be the recorder. You have 30 minutes to complete this activity.

Peer Group Strategy

1. Dialogue - each member should have the opportunity to share his/her concerns. (Record concerns below as they are expressed.)

2. Decision Making - generate options and come to a consensus about solutions. Develop a plan of action. (Record below the plan of action.)

3. Action - (Would occur at your school site - no simulation).

4. Evaluation - determine how to evaluate the action. (Record below your system of evaluation.)

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FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Peer Group Strategy

What would you do if...

1. ...some people did not participate in the discussion?

2. ...the dialogue turned into a gripe session?

3. ...the plan of action was not implemented?

4. How would you foster collegiality among the members of your group?

OVERHEADS SESSION - C

O.H. -C-1

STAFF DEVELOPMENT STRATEGIES

THE PEER GROUP STRATEGY

ORGANIZATION DEVELOPMENT

CONCERNS BASED ADOPTION MODEL (CBAM)

I/D/E/A STUDY

- ADULTS IN SCHOOLS MUST LEARN TO HELP THEMSELVES
- IDENTIFIED THE PROCESS BY WHICH ALL STAFFS CONSIDER CHANGE OR REJECT IT
- SELF RENEWING SCHOOLS ARE A PRODUCT OF GROUP ENTERPRISE

THE PEER GROUP STRATEGY

Process of : dialogue, decision making, action and evaluation (D.D.A.E)

School people work together (with minimal outside assistance) on issues they consider to be important and situation specific.

THE PEER GROUP STRATEGY

Assumptions:

- professional collegiality
- resources for change within the school
- change takes place only as the people are involved
- risk taking & commitment are promoted
- school site is logical unit for change
- principal is the key change agent
- collegial groups are less isolated

O.H. IC-5

THE PEER GROUP STRATEGY

Features:

- teacher talk focused on professional issues
- teachers know about the school--not just their own classroom
- teachers and principals work together as colleagues
- all elements of school may change
- communication is bi-directional
- success is rewarded
- teachers work together to solve problems
- district personnel provide personal & intellectual support and technical assistance

THE PEER GROUP STRATEGY

Activities:

1. teachers observe one another
2. in-school and community resources identified
3. school meetings substantive (not procedural)
4. teachers convene and conduct workshops
5. teachers ask administrators for assistance
6. teachers and principals engage in self study
7. teachers help teachers
8. DDAE attended to in terms of school issues
9. in-school and intra-school support groups established

THE PEER GROUP STRATEGY

Anticipated Outcomes:

- school self-improvement
- situation-specific problems receive situation-specific solutions
- increase in teacher self esteem
- increase in professional collegiality
- strengthened communication links
- teachers assume leadership
- teachers seek advice
- principals become resource persons as well as team members
- increase in morale and professionalism

SESSION D

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session D - four hours

To the Trainer: This four hour workshop builds on the skills the instructional leader needs to improve classroom instruction.

Participants will be able to:

- describe the elements of coaching
- identify behavior coaches exhibit among students and peers
- define academic learning time
- complete a time-on-task analysis
- define the concept Organization Development (OD)
- complete an OD readiness checklist

HANDOUTS:

D-1	Agenda
D-2	Coaching and Learning
D-3	Joyce and Showers
D-4	Increased learning time
D-5	Sherwood Article
D-6	OD
D-7	Sievert Article
D-8	OD Checklist

OVERHEADS:

D-1	Sentence Completion
D-2	Coaching and Learning
D-3	Engaged Time
D-4	Engagement Observation Sheet

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session D - four hours

SAMPLE AGENDA

First Hour	Review of Sessions I - III
	The Theory of Coaching
	Mortimer Adler
	Joyce and Showers
	teacher to student, teacher to teacher, staff developer to teacher
Second Hour	View and discuss coaching videotape
	BREAK
Third Hour	Introduction to Increased Academic Learning Time (ALT)
	● ALT Handbook
Fourth Hour	Change Strategy: Organization Development
	● OD readiness test and discussion
	● planning time

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session D - four hours

H.O. #D-1
(Agenda)

Overhead D-1

Welcome to the next session in this series, Focus on Effective Teaching/Staff Development. Today we are going to continue our study of the knowledge base which leads to more effective teaching and staff development.

The first activity will be to review our previous sessions.

Display
Overhead
O.V. #D-1

With participants following along, have volunteers complete the sentences and encourage discussion.

OVERVIEW OF TODAY'S AGENDA:

Coaching: In our first session we briefly discussed Mortimer Adler's definition and design for coaching. Today we are going to look at the theory and practice of coaching more carefully.

1. teacher → student coaching
2. teacher → teacher coaching or Peer Observation
3. staff developer to teacher

Academic Learning Time (ALT) or Time on Task is our second subject for the day.

1. observe how much time students spend learning
2. identify which students are off task
3. select teaching methods to increase learning time

Organization Development--as a staff developer strategy OD attempt to improve the instructional program in the context of the school's overall function as an organization. OD helps us to recognize that human needs largely determine people's behavior at work.

THE THEORY OF COACHING

Prior to session
read:

- The Paideia
  Proposal
  by Mortimer Adler

1. Three modes of teaching and learning

   (a) essential)
   (b) interconnected) K-12
   (c) overlapping)

● Coaching Research by Joyce & Showers

2. Correspond to:

   1. acquisition of organized knowledge
   2. development
   3. enlargement of insight understanding and aesthetic appreciation

Overhead D-2
H.O. #D-2

Column I didactic

Column II coaching

Column III socratic

Features of Coaching According to Joyce and Showers

"Hands on in classroom assistance with the transfer of skills and strategies to the classroom."

1. provision of companionship
2. giving of technical feedback
3. analysis of when to apply a model and the effects of its application
4. adaptation of the model to the needs of the students
5. interpersonal facilitation (support) during the practice periods

Coaching between staff developer and teacher or teacher to teacher involves the "fine tuning of the existing skills or the mastering and implementing of the new ones. Fine tuning is easier because the size of the change is smaller and less complex." In this instance, we are looking at the coaching of the average or above average teacher. The teacher having difficulty can also be coached. But the purpose and scope of that coaching and the support given to that teacher must be more intensive and over a longer period of time.

Just as classroom observations must have a purpose, so should coaching. The coach and person coached need to be clear on the skills(s) to be demonstrated and have an opportunity to following the lesson to share ideas and concerns.

Joyce & Showers, 1980
H.O. #D-3

"Coaching has 5 component parts:

1. presentation of theory or discipline of skill or strategy
2. modeling or demonstration of skills or models of

teaching

3. practice in simulated or classroom settings

4. structured and open ended feedback

5. coaching for application (in classroom assistance--coach observes and makes further suggestions.)"

Components 1-2 involve observation of the coach by the classroom teacher. Items 3-4 allow the classroom teacher to practice those skills receiving objective feedback from the coach through the observation process.

Component 5 describes the "shoulder to shoulder" assistance given by the coach to the teacher. A co-teaching process whereby the coach can guide the teacher through each methodological step providing positive, specific and, if necessary, corrective feedback. Mastery level concepts involving new teaching strategies or a new subject area would be logical situations for a shoulder to shoulder coaching situation.

View Coaching
videotape

After viewing a videotape on coaching, discuss the strategies with the group.

THIRD HOUR
from p. 7
Barnes, 1981

Academic Learning Time

One area of teacher effectiveness research producing some of the most consistent findings has been research on the learning environment. Each study included in our initial review (Session A) found positive relationships between classrooms broadly described as "work, task or academically oriented" and student achievement gains. The terms "work, task or academically oriented describe classrooms where teachers expect and require students to pay attention, to work persistently toward completion of assignments, to exhibit a cooperative attitude and, in general, to concentrate on academic activities rather than socializing. The amount of time allocated to academic tasks has been significantly related to student achievement in several studies. (Evertson, Anderson, & Brophy; McDonald & Elias).

Distribute
booklet:
How to
Increase
Learning
Time
H.O. #D-4
O.H. #D-3

Outline of topics to be covered in booklet:

1. highlights pp. 3-4

2. define engaged and non-engaged terms--giving examples of each

3. observer and schedule pp. 7-14

4. interpreting the numbers

consistency

patterns--class and student pp. 25-28

5. how to improve the engaged rates

O.H. #D-4 Display a completed class engagement observation sheet. Walk them through the time periods.

Have participants identify the patterns, offering suggestions for improved engaged rate.

Change Strategy: Organization Development

Human organizations are as susceptible, perhaps more so, as other social institutions are, to changing times and their rise and fall. Success and failure testify to their vulnerability.

"What may be most in need of innovation is the corporation itself. Perhaps what every organization needs is a department of continuous renewal that could view the whole organization as a system in need of continuing innovation" (Gardner, 1965).

H.O. #D-6 #D-7 Organization Development (OD) is a response to change, a complex educational strategy intended to change the beliefs, attitudes, values and structure of the organizations so they can better adapt to new technologies, markets and the challenges, and dizzying rate of change itself.

H.O. #D-5 Allow 10 mins. to read Give participants the opportunity to read Sherwood's article (Handout D-5) if it was not assigned previously.

OD Readiness

- J. William Pfeiffer and John E. Jones

(Reproduced from the 1978 Annual Handbook for Group Facilitators--J. William Pfeiffer and John E. Jones, Ed., La Jolla, California: University Associates, Inc., 1978.)

An intriguing parallel exists between the concept of organization development (OD) "readiness and the developmental trait of reading readiness." Once an individual child is ready to read, it is somewhat immaterial which teaching method is used. Conversely, when a child is not ready to learn to read, all strategies are relatively unsuccessful in teaching that child how to read. In an analogous way, once an organizational system has the necessary prerequisites, change is likely to take place regardless of which methodology is applied. Conversely, the most sophisticated techniques employed by the most competent and experienced consultants and managers are doomed to failure when the organization itself is unready to undertake a project of planned change.

Entry Considerations

There are four major OD entry strategies; working from the top down, interventing at "crunch" points, working with "bellwether" groups, and conducting training. Each of these approaches has both advantages and disadvantages; however, in the context of OD readiness, these considerations take on a significance different from that which is commonly attributed to them.

"Top-Down" Strategy

When possible, the best strategy is to gain OD efforts by conducting assessment, diagnosis, and team development with the top management. The change agents can legitimize themselves, support for the OD effort can be garnered, and the top group can demonstrate that it is willing to subject itself to the process. It is important to recognize, however, that a top-down strategy can also create problems. Managers at lower levels often become resistant to change originated by the senior executive group. An additional potential drawback of this strategy is that the change agents can be seen as "pawns" of the executive group.

Crisis Intervention

Intervening when the organization is experiencing some significant difficulty is often an attractive entry approach. Considerable energy can be focused on change efforts when a system relief is felt to be needed within a part of the organization that is experiencing stress. This approach is a common "marketing" strategy on the part of both internal and external OD practitioners. The potential disadvantages of intervening in crisis situations include the tendency to foster a dependency on external help and the likelihood that OD will be seen as a short-term problem solution rather than a long-range systematic plan for change. Return to "normal" organizational conditions can be seen as OD success, and the precipitating factors may not be confronted.

Dealing With Successful Groups

Often OD can proceed best when there is little or no stress in the organizational unit that is contemplating open-system planning. Change agents can be used to focus on problematic issues in successful parts of an organization. Here the problem-solving methods most common in OD which are essentially cognitive in emphasis can be utilized to good advantage. Because there is no excessive overload of emotion, persons involved in the problem-situation can approach its amelioration more calmly and rationally.

The disadvantage of this entry strategy is that persons in such situations are not likely to seek assistance. Sometimes managers in successful parts of the organization are reluctant to experiment with the structure, communication and participation.

Since it often happens in OD efforts that things get worse before they get better, managers may resist opening up situations in which productivity is satisfactory.

Training

Management development as a pre-OD intervention is one of the best strategies. If there is any doubt that the organization is ready for large-scale problem solving, it is almost always advisable to do training first. It makes little or no sense to attempt to use OD methods on a reluctant client. It is often more advisable to concentrate efforts on training for individual managers, supervisors, and leaders, rather than consulting services for management groups, departments, and divisions.

Training provides a foundation of skills, experience, and concepts on which OD programs can later be based. Training also legitimizes internal and external OD consultants. The consultant can find many opportunities in training to work with individual managers and supervisors on applications of their learning to the actual situations in which they find themselves.

Readiness Indicators

In a previous article entitled "A Current Assessment of OD: What It Is and Why It Often Fails" (Pfeiffer & Jones, 1976), reasons were indicated why a particular OD intervention might be unsuccessful. These include (1) unrealistic expectations, (2) inadequate support, (3) failure to follow through, (4) ineffective use of consultants, (5) management resistance, (6) size of the organization, (7) unwillingness to model behavior, and (8) inadequate skills.

If the right questions could be asked in a brief interview or survey-feedback instrument, it would be possible to determine whether or not an organization had reached the stage of readiness to undertake OD intervention. A number of variables seem to offer the most promise. Franklin (1976) contrasted organizations with successful and unsuccessful OD efforts along with eight dimensions: (1) the organization's environment, (2) the organization itself, (3) initial contact for the OD project, (4) formal entry procedures and commitment, (5) data-gathering activities, (6) characteristics of the internal change agents, (7) characteristics of the external change agents, and (8) exit procedures. The results of the study indicated no single dimension that was essential or sufficient to distinguish between successful and unsuccessful OD interventions; however, three general areas did serve to differentiate the OD efforts:

1. The stability of the organization. Organizations that are more open to an involved in adjusting to change are more likely to be successful in OD efforts than those that are more stable or oriented toward the status quo.

2. Interests and commitments to the OD effort. More specific interests and greater commitment to the OD project, as well as strong support from top management, are associated with successful change.

3. Characteristics of the internal change agents. Internal change agents involved in successful interventions possess assessment-prescriptive skills and are more carefully selected and received less change-agent training prior to the OD effort than internal change agents involved in unsuccessful OD interventions.

Stated more comprehensively, the traits identified by Franklin seem to indicate that organizations that are oriented toward and committed to planned change are more amenable to OD interventions from internal change agents who are not preconditioned toward ready-made answers. Since OD necessitates a large-scale involvement of people in identifying and solving problems in open ways, change-oriented systems are most likely to have the culture necessary for organizational experimentation and self-scrutiny. These conclusions are a helpful jumping-off point for exploring the indicators that reveal organizations ready to deal with the change implied in undertaking an OD program. The following 15 indicators in three broad areas have been extrapolated from our experience and used as the basis of the OD Readiness Checklist which appears at the end of this discussion.

General Considerations

1. Size

The size of an organization is one of the key indicators of the potential success of OD (Pfeiffer & Jones, 1976). It is worth reiterating the point: much of the technology of OD simply does not apply to large organizations. A useful question about organizational size is the following: is the organization manageable, that is, it is within the span of control of a single individual and within the realm of intervention by one or two internal change agents, with assistance from external specialists?

We contend that it is exceedingly difficult to use "traditional" OD techniques in a coordinated way to produce meaningful changes in organizations exceeding about five hundred people. Larger systems require different types of interventions and, in OD terms, can be dealt with only through subsystems. It may be that the only practical approach is OD within parts of the system. In fact, in large-scale organizations, subunit OD is, in our judgment, the most viable of the alternatives available to the consultant.

2. Growth Rate

At what rate is the organization growing? Those organizations that are declining in size, experiencing a slow rate of growth, or growing very rapidly are less likely to be ready for OD than those organizations that are growing at a moderately rapid rate. Organizations that are growing very rapidly may have little or no energy available for OD interventions; relative static organizations may be reluctant to tamper with the status quo; organizations that are declining in growth may want quick cures rather than long-term planned change.

3. Crisis

An organization in which there is visible evidence of crisis that is perceived by a variety of people at various levels is highly likely to be ready for OD. Organizations that are experiencing significant stress tend to be receptive to intervention; however, they are also likely to become dependent on consultants rather than to develop self-renewing planning. Crisis necessitates change, and OD potentially facilitates participative solutions that can result in shared commitment to action.

4. Macroeconomics

The economic situation in which the organization functions must, of course, be considered. The Vietnam War had a great deal of impact on a number of organizations, as did the oil embargo. The consultant must judge whether the microeconomic factors are such that success in the OD intervention can be foreseen and the intervention can, in fact, be afforded.

5. OD History

Does the organization have a history of OD interventions? Experience indicates that when the history of the organization is one with several OD interventions, the latest one becomes simply the "project of the year," and people tend to lost interest in the effort. Given an organizational history of several OD attempts, it is very difficult to make an intervention that will have an impact on the organization--particularly when OD efforts have ben controversial, unsuccessful, or only partially successful in the past. In that case, the change agent may find himself "guilty by association." Low expectations resulting from previous OD interventions frequently limit the effectiveness of new efforts.

6. Culture

Is the culture of the organization viable, permeable, and supportive of radical change? Very frequently, the other indicators of OD readiness are positive, but commitment to the status quo in the organization may be very strong. The culture of the organization may present such a formidable block that it is virtually impossible to discuss the changes necessary for carrying out a successful OD program. Bureaucratic, heavily unionized and ritualistic organizations are likely to be closed, nontrusting systems that do not invest heavily in efficiency and effectiveness.

7. Time Commitment

Is the time commitment of the organization or the managers of the organization adequate to allow for the development of a meaningful OD intervention? Another way to look at this point is whether the organization is committed to all the meetings necessary in OD. Since OD programs progress primarily through myriad meetings, it is important for the organization to be aware of the depth of its commitment process. Organizations take a long time to become the way they are, and a reasonable expectation of the time it takes to initiate and stabilize planned change is at least three years of concentrated work.

8. Money

Is the organization able to afford the cost involved in an OD effort, both indirectly in time taken away from work and directly in fees for external and internal consultants? Is the management ready to invest sufficient money in the project?

9. Access to People

Within the initial concept of the OD intervention, is access freely allowed to all people in the organization? If limitations are imposed and individuals at particular levels of an organization cannot be reached, an organization is clearly signalling its lack of readiness. OD programs are doomed to failure if particular key executives put themselves above the process. Ironically, internal OD consultants often do not have the access to high-level managers, clearly reducing the impact of the OD program.

10. Labor Contract Limitations

This variable considers the limits placed on the intervention by the members of management who are responsible for negotiating labor agreements. If the limits of worker participation are too restrictive, the OD effort is severely hampered simply by the inability of the change agents to get a mandate broad enough to deal with the problems that are relatively certain to be identified.

11. Structural Flexibility

It sometimes becomes apparent during an OD project that structural changes need to be made. Does the organization have the capacity to reshuffle managers and departments and change reporting procedures, communication patterns, and reward systems?

People Variables

12. Interpersonal Skills

It is important to consider whether there are adequate interpersonal skills in the organization to deal with OD change.

Very frequently, the other criteria for readiness will be apparent, but the necessary skills are absent. The methods of OD are essentially verbal, and they require communication skills. If the personnel in the organization are deficient in their ability to express themselves, to listen, and to respond creatively and productively to the ideas of others, then the discussions and meetings required in an OD program are likely to be ineffective.

13. Management Development

To what degree do managers understand and incorporate applications of behavioral science principles in their work? If managers are poorly educated and have underdeveloped interpersonal skills, OD meetings can be futile at best and at worse explosive. An ongoing management development program can provide a "floor" for organization problem solving and unfreeze individual managers for interpersonal feedback processes.

14. Flexibility at the Top

It is necessary that those people who are in positions of power in the organization be sufficiently flexible to open themselves to influence from below. Although it may not be necessary to begin the OD effort at the top, it clearly is critical that top executives be knowledgeable about and supportive of the program and willing to open up the system. One or two key executives who are personally and/or organizationally rigid can often preclude the success of an OD intervention.

15. Internal Change Agents

We believe that the best OD staffing consists of an interplay among managers, internal change agents, and external consultants. The major motivation of the outside consultants should be to autonomize managers so that they take responsibility for conducting the organization's ongoing developmental efforts. Without people in the organization who are familiar with experimental methods, consulting, change strategy, and training methods, the organization becomes dependent on external sources of help.

Conclusion

If it is determined that an organization does not have the requisite OD readiness, what strategy is open to the consultant? The most frequent answer is training as a readiness-inducing strategy within organizations. Some of the indicators previously discussed, such as size, rate of growth, and macroeconomics, are beyond the effect of training. Other important criterion variables, however, are amenable to a meaningful education program. It is possible that conceptual skills and personal skills that are requisites of OD readiness can be taught in a variety of formal and informal organizational training programs.

If, however, the organization cannot be meaningfully affected by OD technology, the consultant should be willing to walk away. A consultant's continued history of failure in OD projects with organizations for which it is clear that OD interventions are unlikely to be successful makes it difficult for other consultants to work with clients. We consider such persistent opportunism to be unethical (Pfeiffer & Jones, 1977). The individual practitioner should examine the indicators for the given organization. If those indicators do not predict success, and if they cannot be dealt with in a training education mode, the consultant should be direct and simply say that the culture is too strong to augur for the success of change, or that the sense of compliance in the organization is too high for commitment to change, or that the internal history of the organization is such that a new project will not be taken seriously. To undertake an OD effort in the face of predicted failure is unwise--both for the particular consultant and for other professionals in the field.

OD Readiness Checklist

H.O. #D-8

The brief instrument that follows summarizes the chief indicators of OD readiness, weighing each indicator according to its relative criticalness. The checklist may be used as the basis for subjective assessment of an organization to determine the degree to which that organism is likely to support an OD effort. This assessment can be made by a group, ideally consisting of key managers, internal change agents, and external consultants. OD practitioners can also use the instrument to analyze their own history of failures, successes, and decisions not to initiate OD interventions.

(Reproduced from the 1978 Annual Handbook for Group Facilitators, J. William Pfeiffer and John E. Jones, Eds., La Jolla, California: University Associates, Inc., 1978.)

H.O. #D-8 OD Readiness Checklist

Now that we have a firm grasp on the concept of OD, let's see how ready our site is for change. Consider a change you would like to implement at your site. With this in mind let's rate the receptivity of your staff.

Read through the items explaining the topics and have the participants score the checklists.

Add up all the circled items. Read to the group the interpretations of the scores.

(For interpretation of scores see handbook, listed below.)

Reproduced from The 1978 Annual Handbook for Group Facilitators. J. William Pfeiffer and John E. Jones, editors. La Jolla, CA: University Associates, Inc., 1978.

HANDOUTS SESSION - D

H.O.#D-1

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session D - four hours

SAMPLE AGENDA

First Hour	Review of Sessions I - III The Theory of Coaching Mortimer Adler Joyce and Showers teacher to student, teacher to teacher, staff developer to teacher
Second Hour	View and discuss coaching videotape BREAK
Third Hour	Introduction to Increased Academic Learning Time (ALT) • ALT Handbook
Fourth Hour	Change Strategy: Organization Development • OD readiness test and discussion • planning time

H.O. #D-2

Coaching and Learning

	COLUMN ONE	COLUMN TWO	COLUMN THREE
Goals	ACQUISITION OF ORGANIZED KNOWLEDGE	DEVELOPMENT OF INTELLECTUAL SKILLS - SKILLS OF LEARNING	ENLARGED UNDERSTANDING OF IDEAS AND VALUES
	by means of	by means of	by means of
Means	DIDACTIC INSTRUCTION LECTURES AND RESPONSES TEXTBOOKS AND OTHER AIDS	COACHING, EXERCISES, AND SUPERVISED PRACTICE	MAIEUTIC OR SOCRATIC QUESTIONING AND ACTIVE PARTICIPATION
	in three areas of subject-matter	in the operations of	in the
Areas Operations and Activities	LANGUAGE, LITERATURE AND THE FINE ARTS MATHEMATICS AND NATURAL SCIENCE HISTORY, GEOGRAPHY, AND SOCIAL STUDIES	READING, WRITING, SPEAKING, LISTENING CALCULATING, PROBLEM-SOLVING OBSERVING, MEASURING, ESTIMATING EXERCISING CRITICAL JUDGMENT	DISCUSSION OF BOOKS (NOT TEXTBOOKS) AND OTHER WORKS OF ART AND INVOLVEMENT IN ARTISTIC ACTIVITIES e.g., MUSIC, DRAMA, VISUAL ARTS

Photo: Joe Di Dio, NEA.

Improving Inservice Training: The Messages of Research

Bruce Joyce and Beverly Showers

To be most effective, training should include theory, demonstration, practice, feedback, and classroom application.

We have just completed a two-year effort to examine research on the ability of teachers to acquire teaching skills and strategies.

The first message from that research is very positive: teachers are wonderful learners. Nearly all teachers can acquire new skills that "fine tune" their competence. They can also learn a considerable repertoire of teaching strategies that are new to them.

The second message is more sobering but still optimistic: in order to improve their skills and learn new approaches to teaching, teachers need certain conditions—conditions that are not common in most inservice settings even when teachers participate in the governance of those settings.

The third message is also encouraging: the research base reveals what conditions help teachers to learn. This information can be used to design staff development activities for classroom personnel.

Two Purposes of Training

Improving our teaching can be focused on "tuning" our present skills or on learning new (to us)

BEST COPY AVAILABLE

ways of teaching. When tuning our skills, we try to become more affirmative, involve students more, manage logistics more efficiently, ask more penetrating questions, induce students to be more productive, increase the clarity and vividness of our lectures and illustrations, and understand better the subject matter we teach. In short, we work on our craft. Training oriented toward fine tuning consolidates our competence and is likely to increase our effectiveness.

Mastering new teaching strategies or models and/or learning to put alternative curriculums in place is quite a different goal. To master a new approach we need to explore and understand its rationale, develop the ability to carry out the new strategies, and master fresh content.

Generally speaking, "fine tuning" our existing approaches is easier than mastering and implementing new ones, because the magnitude of change is smaller and less complex. When we change our repertoire, we have to learn to think differently, to behave differently, and to help children adapt to and become comfortable with the new approaches, so mastery of new techniques requires more intensive training than does the fine tuning.

We organized our analysis to find out how various components of training contribute to learning. To do this we developed a typology of "levels of impact" of training and another for categorizing training components. Then we asked the question, "In the body of research on training, how much does each kind of training component appear to contribute to each level of impact?"

Levels of Impact

Whether we teach ourselves or whether we learn from a training agent, the outcomes of training can be classified into several levels of impact: awareness; the acquisition of concepts or organized knowledge; the learning of principles and skills; and the ability to apply those principles and skills in problem-solving activities.

- *Awareness*—At the awareness level we realize the importance of an area and begin to focus on it. With inductive teaching, for example, the road to competence begins with awareness of the nature of inductive teaching, its probable uses, and how it fits into the curriculum.
- *Concepts and Organized Knowledge*—Concepts provide intellectual control over relevant content. Essential to inductive teaching are knowledge of inductive processes, how learners at various levels of cognitive development respond to inductive teaching, and knowledge about concept formation.
- *Principles and Skills*—Principles and skills are tools for action. At this level we learn the skills of inductive teaching: how to help students collect data, organize it, and build concepts and test them. We also acquire the skills for adapting to students who display varying levels of ability to think inductively and for teaching them the skills they lack. At this level there is potential for action—we are *aware* of the area, can *think effectively* about it, and possess the *skills* to act.
- *Application and Problem Solving*—Finally, we transfer the concepts, principles, and skills to the classroom. We begin to use the teaching strategy we have learned, integrate it into our style, and combine the strategy with the others in our repertoire.

Only after this fourth level has been reached can we expect impact on the education of children. Awareness alone is an insufficient condition. Organized knowledge that is not backed up by the acquisition of principles and skills and the ability to use them is likely to have little effect.

Components of Training

Most of the training literature consists of investigations in which training elements are combined in various ways, whether they are directed toward the fine-tuning of styles or the mastery of new approaches. From our analysis, we were able to identify a number of training components that have been studied intensively. Alone and in combination, each of these training components contributes to the impact of a training sequence or activity. (As we shall see, when used together, each has much greater power than when they are used alone.) The major components of training in the studies we reviewed are:

1. Presentation of theory or description of skill or strategy;
2. Modeling or demonstration of skills or models of teaching;
3. Practice in simulated and classroom settings;
4. Structured and open-ended feedback (provision of information about performance);
5. Coaching for application (hands-on, in-classroom assistance with the transfer of skills and strategies to the classroom).

The Nature of the Literature

We analyzed more than 200 studies in which researchers investigated the effectiveness of various kinds of training methods. Determining levels of impact from single and combined treatments was difficult for several reasons. Most training studies were not designed to measure levels of impact on the incremental value of each training component. Rather research questions were generally focused on differences between treatment and comparison groups.

Conclusions nearly always addressed the issue of whether skills were acquired and demonstrated. The question of transfer at the classroom level was addressed in relatively few studies. Nevertheless, we have developed working hypotheses regarding expected levels of impact from the various training strategies. The hypotheses are extrapolations derived from investigations that examined training elements for their impact on teacher behavior. Although the conclusions here are working hypotheses, we believe they adequately represent the present state of the literature and that training programs can use them reliably.

No single study used all training components and measured effects at all levels of impact. However, the training literature taken as a whole provides information on many of the possible combinations. For example, simulated practice has been studied for its impact on skills development (Cruickshank, 1968; Vlcek, 1966). Structured feedback has been compared to open-ended feedback and self-observation (Tuckman, 1969; Saloman and McDonald, 1970).

Studies combining modeling, practice, and feedback (Orme, 1966); presentation, practice, and feedback (Edwards, 1975; Hough, Lohman, and Ober, 1969); presentation, modeling, practice, and feedback (Borg, 1975; Borg, Langer, and Kelly, 1971); and presentation, modeling, and feedback (Friebel and Kallenbach, 1969) have been heavily investigated with respect to skill acquisition and transfer.

Although few studies focused on "coaching to application" as conceived here, several treatments included lengthy follow-up feedback after initial training (and these methods seemed to result in greater transfer at the classroom level). Feldon and Duncan (1978) demonstrated the power of observation, feedback, and goal-setting to boost the effects of training, and Borg, Langer, and Kelley (1971) found permanence of fine-tuning skills in a delayed posttest after an initial training that included presentation, modeling, practice, and feedback.

Is there a clear demarcation between fine tuning and new repertoire? Sometimes it was unclear if the focus of the study was fine tuning of existing skills or redirection of teaching style. Frequently, pretraining observations of teaching were omitted from the training study, so the level of entry skills was unknown. However, we have applied several general rules of thumb to distinguish the purposes of training. First, if preservice teachers were the subjects of training, we were more likely to label the training objective "new repertoire" than if inservice teachers were the subjects. Secondly, training aimed at questioning skills, discussion skills, question wait time, attending to overlooked students, and positive reinforcement of desirable student behavior were generally classified "fine tuning." It seemed reasonable to assume that these behaviors reside in everyone's repertoire, including teachers and teacher trainees. Third, if training involved installation of a new curriculum, instruction in inquiry strategies, or unusual models of teaching that departed radically from the usual recitation classroom process, the purpose of training was assumed to be redirection of teaching style.

Was there an awareness of the need for addressing the transfer question in the training research? Apparently, many researchers are aware of the need to assess transfer of learned skills at the classroom level. Recent carefully designed studies examining relationships between student learning and teacher training have carefully monitored teacher behavior in the classroom to assure the implementation of new strategies thought to influence student learning. Furthermore, many studies conclude with the observation that application of skills in the classroom should be the subject of future research.

What is the power of individual components? Some components were studied intensively; others were not. We discovered no studies in which presentation alone was the training strategy, but it often appeared as a "control," when it was invariably surpassed by treatments including modeling, practice, or feedback components. Likewise, no studies were reviewed in which practice alone constituted the treatment.

The evidence for modeling and feedback is the clearest. Koran, Snow, and McDonald (1971) demonstrated the efficacy of modeling for redirecting teacher behavior, and Good and Brophy (1974) illustrated the effectiveness of feedback in a powerful one-shot interview based on four months of classroom observation.

How conflicting were the findings? The results of training studies are remarkably consistent. Teachers learn the knowledge and concepts they are taught and can generally demonstrate new skills and strategies if provided opportunities for any combination of modeling, practice, or feedback.

Was the level of impact always discernible? The absence of fine-grained analyses that examine all levels of impact for individuals in a training program leaves many questions unanswered, for example, the percentage of trainees that achieved each level of impact following training. For the purposes of this review, we assumed that skills had been acquired if teachers were observed to exhibit the trained skills or strategies in peer teaching, microteaching, or classroom settings. If observations occurred several months after completion of training and the trained skills or

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Bruce Joyce (left) is Writer and Researcher in Education, Palo Alto, California; Beverly Showers is at the Center For Educational Research, Stanford University, Stanford, California.

strategies were in evidence, we assumed transfer had been accomplished. Now, what did we find?

Effectiveness of Components

1. *Presentation of Theory*—The substance of theory components is the rationale, theoretical base, and verbal description of an approach to teaching or a skill or instructional technique. Readings, lectures, films, and discussions are used to describe the approach, its conceptual base and potential uses. In many higher education courses and inservice institutes and workshops, it is not uncommon for presentation of theory to be the major and in some cases the sole component of the training experience. In research it is frequently combined with one or more of the other components.

Level of impact: Either for tuning of style or mastery of new approaches, presentation of theory can raise awareness and increase conceptual control of an area to some extent. However, it is for relatively few teachers that it results in skill acquisition or the transfer of skills into the classroom situation (although there are some people who build and transfer skills from theory presentations alone). On the other hand, when the presentation of theory is used in combination with the other training components, it appears to boost conceptual control, skill development, and transfer. It is not powerful enough alone to achieve much impact beyond the awareness level, but when combined with the others, it is an important component.

2. *Modeling or Demonstration*—Modeling involves enactment of the teaching skill or strategy either through a live demonstration with children or adults, or through television, film, or other media. In a given training activity, a strategy or skill can be modeled any number of times. Much of the literature is flawed because only one or two demonstrations have been made of some quite complex models of teaching, thus comprising relatively weak treatments.

Level of impact: Modeling appears to have a considerable effect on awareness and some on knowledge. Demonstration also increases the mastery of theory. We understand better what is illustrated to us. A good many teachers can imitate demonstrated skills fairly readily and a number will transfer them to classroom practice. However, for most teachers modeling alone is unlikely to result in the acquisition and transfer of skills unless it is accompanied by other components. Fairly good levels of impact can be achieved through the use of modeling alone where the tuning of style is involved, but for the mastery of new approaches it, by itself, does not have great power for many teachers. All in all, research appears to indicate that modeling is very likely to be an important component of any training program aimed at acquisition of complex skills and their transfer to the classroom situation.

3. *Practice Under Simulated Conditions*—Practice involves trying out a new skill or strategy. Simulated conditions are usually achieved by carrying out the practice either with peers or with small groups of children under circumstances which do not require management of an entire class or larger group of children at the same time.

Level of impact: It is difficult to imagine practice without prior awareness and knowledge; that is, we have to know what it is we are to practice. However, when awareness and knowledge have been achieved, practice is a very efficient way of acquiring skills and strategies whether related to the tuning of style or the mastery of new approaches. Once a relatively high level of skill has been achieved, a sizeable percentage of teachers will begin to transfer the skill into their instructional situations, but this will not be true of all persons by any means, and it is probable that the more complex and unfamiliar the skill or strategy, the lower will be the level of transfer. All in all, research supports common sense with respect to practice under simulated conditions. That is, it is an extremely effective way to develop competence in a wide variety of classroom techniques.

4a. *Structured Feedback*—Structured feedback involves learning a system for observing teaching behavior and providing an opportunity to reflect on teaching by using the system. Feedback can be self-administered, provided by observers, or given by peers and coaches. It can be regular or occasional. It can be combined with other components, which are organized toward the acquisition of specific skills and strategies. That is, it can be directly combined with practice and a practice-feedback—practice-feedback sequence can be developed. Taken alone, feedback can

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SCHOOLS within SCHOOLS

AN ANSWER TO
THE PUBLIC SCHOOL DILEMMA

BY DR. CLEMENT A. SELDIN

Introduction by Dr. Mario D. Fantini,
Dean of Education, University of Massachusetts

Do you know the 10 essentials for the success of a public school with coexisting programs? Dr. Clement A. Seldin, an educator who has taught extensively in a pioneering School Within a School, analyzes the 10 essentials. If one is missing, the entire program may be jeopardized. Carefully researched, clearly written, here is a provocative approach to the compatible matching of teaching and learning styles. "Seldin significantly expands our knowledge and understanding," says Dr. Fantini. Review of the literature, extensive bibliography, solid recommendations. Paper, $4.60 (includes postage and handling). Order today from BLYTHE-PENNINGTON, LTD., Croton-on-Hudson, New York 10520.

result in considerable awareness of one's teaching behavior and knowledge about alternatives. With respect to the fine tuning of styles, it has reasonable power for acquisition of skills and their transfer to the classroom situation. For example, if feedback is given about patterns of rewarding and punishing, many teachers will begin to modify the ways they reward and punish children. Similarly, if feedback is provided about the kinds of questions asked in the classroom, many teachers will become more aware of their use of questions and set goals for changes. In general these changes persist as long as feedback continues to be provided and then styles gradually slide back toward their original point. In other words, feedback alone does not appear to provide permanent changes, but regular and consistent feedback is probably necessary if people are to make changes in very many areas of behavior and maintain those changes.

4b. *Open-Ended Feedback*—Unstructured feedback—that is, feedback consisting of an informal discussion following observation—has uneven impact. Some persons appear to profit considerably from it while many do not. It is most likely that unstructured feedback best accomplishes an awareness of teaching style and as such can be very useful in providing "readiness" for more extensive and directed training activities. For example, teachers might begin to observe one another informally and engage in general discussions about teaching behavior and then proceed toward focused attempts at change. Modeling followed by practice and feedback can be very powerful in achieving skill development and transfer.

5. *Coaching for Application*—When the other training components are used in combination, the levels of impact are considerable for most teachers up through the skill level, whether the object is the tuning of style or the mastery of new approaches to teaching. For example, demonstration of unfamiliar models of teaching or curriculum approaches combined with discussions of theory and followed by practice with structured feedback reach the skill acquisition level of impact with nearly all (probably nine out of ten) teachers at the inservice or preservice levels. If consistent feedback is provided with classroom practice, a good many, but not all, will transfer their skills into the teaching situation. For many others, however, direct coaching on how to apply the new skills and models appears to be necessary. Coaching can be provided by peers (other teachers), supervisors, professors, curriculum consultants, or others thoroughly familiar with the approaches. Coaching for application involves helping teachers analyze the content to be taught and the approach to be taken, and making very specific plans to help the student adapt to the new teaching approach.

Combinations of Components

For maximum effectiveness of most inservice activities, it appears wisest to include several and perhaps all of the training components we have listed (see, for example; Orme, 1966.) Where the fine tuning of style is the focus, modeling, practice under simulated conditions, and practice in the classroom, combined with feedback, will probably result in considerable changes. Where the mastery of a new approach is the desired outcome, presentations and discussions of theory and coaching to application are probably necessary as well. If the theory of a new approach is well presented, the approach is demonstrated, practice is provided under simulated conditions with careful and consistent feedback, and that practice is followed by application in the classroom with coaching and further feedback, it is likely that the vast majority of teachers will be able to expand their repertoire to the point where they can utilize a wide variety of approaches to teaching and curriculum. If any of these components are left out, the impact of training will be weakened in the sense that fewer numbers of people will progress to the transfer level (which is the only level that has significant meaning for school improvement). The most effective training activities, then, will

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be those that combine theory, modeling, practice, feedback, and coaching to application. The knowledge base seems firm enough that we can predict that if those components are in fact combined in inservice programs, we can expect the outcomes to be considerable at all levels.

Future research on training should systematically address the many cells of the training components/levels of impact matrix that currently lack adequate data. An emphasis on the effects of "coaching to application" on "problem solving"—with coaching administered by other teachers, principals, supervisors, and so on—should provide useful information not only on "coaching" as a training strategy but on the relative effectiveness of various training agents as well. If, in fact, coaching by peers proves to boost the magnitude of classroom implementation, an extremely practical and powerful training method can be added to the already tested strategies of theory presentation, modeling, practice, and feedback.

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HOW TO INCREASE LEARNING TIME

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TAC

• a tool for teachers •

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Technical Assistance Centers

Introduction

XII
III
VI
LEARNING

Does any teacher expect to find a magic formula that will raise student achievement?

Certainly we'd all like that kind of golden key to learning. But no single approach will help every student gain and retain knowledge.

Even so, a few proven methods exist. Research has shown that you can improve student performance if, for example, you:

III
VI
LEARNING

- Increase the time a student spends actively learning and practicing a skill
- Have students work at tasks that provide them with a high rate of success
- Involve students in learning activities that require them to interact with others—such as reading aloud or drill and practice
- Tailor instructional strategies and materials to students' achievement levels.
- Provide frequent feedback to students.

VI
LEARNING

This booklet focuses on the first item above. It describes ways you can increase the amount of time students in your class apply themselves to learning. The more you can keep students actively learning, the more achievement you can expect. But how do you do it?

The methods in this booklet will help you:

- Observe how much time your students actually spend learning
- Identify which students are off-task (and what they are doing instead)
- Select teaching methods you can use to increase your students' learning time

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Current Research

What is the connection between learning time and achievement? Two major findings emerge from recent research:

1. Students' achievement is higher when they spend more time engaged in learning activities (e.g., practicing, listening, reading).
2. The amount of time students spend learning differs dramatically from classroom to classroom.

In one fifth-grade reading class, for example, students were observed to engage in reading activities 120 *hours during the year*. Students in a comparable classroom spent 298 hours on reading—two and one-half times more than the other students. Achievement test scores reflected this difference.

In fifth-grade classes, time spent on reading varied from an average of 27 *minutes a day* to an average of 53 minutes a day. Who do you think showed greater achievement?

In one state, second graders are supposed to learn fractions. But a study found second grade classrooms actually spent from 0 to 399 *minutes during the year* on fractions, depending on their teacher.

The table below shows how four classes spent time on some selected math topics. Teachers varied both in the total time spent on math and in how they divided that time among subskills.

Time on Math[*]
(Minutes)

	Class			
Topic	1	2	3	4
Computation	1282	1452	2493	2710
Word problems	109	226	416	132
Money	98	9	228	315
Fractions	0	21	63	399
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
Total Math	2530	2687	4736	5127

Figure 1. Engaged time in different classes.

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[*] Fisher, C.W., Filby, N.N., Marliave, R., Cahen, L.S., Dishaw, M.M., Moore, J.E., & Berliner, D.C. *Teaching behaviors, academic learning time and student achievement: Final report of Phase III-B, Beginning Teacher Evaluation Study in Beginning Teacher Evaluation Study Technical Report Series* (Tech. Rep. V-1). San Francisco, CA: Far West Laboratory, 1978.

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What Is Engaged Time?

Is engaged time the time the school schedules for instruction? The time the teacher devotes?

Or is it the time students actually engage in learning tasks?

Just looking at a schedule won't tell you how much work a class really does—or how any one student has spent the time. A schedule gives the broad, official version of how much time every student spends learning a subject.

If you schedule more time for a subject or devote more time, you can increase the students' opportunity to learn. But scheduling and teaching do not guarantee a student is actually attending to the subject.

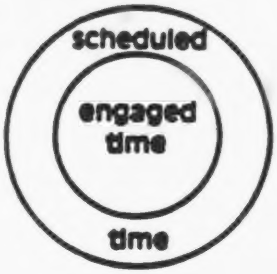

Figure 2.

Engaged time is only part of the time scheduled for a subject.

"Engaged time" is the essence of classroom learning. It is the amount of time students actually work on any assigned activity that builds the desired skill—working on written assignments, for example, or silent reading, or listening to the teacher explain the subject. It can include reading aloud or rapid-fire drill and practice. Engaged time will vary from student to student.

Not all classroom time can be spent learning, of course. Some nonlearning time is needed—taking roll, for example, or moving from one task to the next. And some off-task behavior by students is inevitable. Good teaching doesn't imply that students should be engaged in learning all the time. But research has shown that too much nonengaged time can interfere with learning in many classes.

Think about your own classroom during reading or math time. How much time do your students spend getting ready or straightening up? Do they need to wait for your attention? Do some of them daydream? Do they socialize or watch what others are doing? Do they get restless before the end of the scheduled period?

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In one school, the hour before lunch was usually scheduled for reading—but the students took at least ten minutes of the hour getting ready for lunch. In another school, announcements always seemed to interrupt reading classes.

A student can spend hours in class without practicing a skill or listening to instruction because of all the activities that nibble away at engaged time.

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Why Observe?

You can reduce nonengaged time and increase the time students spend actively learning. Your first step will be to observe how students actually use class time.

It is impossible for a teacher to observe each child systematically and continuously: Teachers are busy managing lessons, working with individual students or checking papers. To check learning time you will need some help from an observer.

An observer in the classroom can spend all of his or her time watching students, finding a daydreamer, noting children who are waiting for answers to questions, checking time lost in moving from one activity to the next. Every two minutes or so an observer can quickly check what each child is doing and record the information. In essence, the observer takes a series of "snapshots" of your students.

In the following pages, you will find an observation system to help you record your students' behavior. When you know how much time your students actually spend learning, you can decide what you want to do about it.

This observation system assumes an observer who sits in the classroom and watches the students, marking whether they are engaged or nonengaged in learning activities. Over time, the observer develops a profile of the class period. You can use the profile to decide if your students are using time most profitably or if you need to make changes to help them use time better.

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Observation Categories

To get a complete picture of engaged and nonengaged behavior, you need a detailed way to describe what is happening. Here are some categories to help you recognize and record the way students spend their time. These categories are used in an observation form (included in the Appendix). Part of the form is shown below.

OBS. TIME:					
Engaged-Interactive					
Engaged-Noninteractive					
Management/Transition					
Unoccupied or Observing					
Socializing					
Working on Other Assignment					
Temporarily Out of Room					
Cannot Tell					

In this booklet we divide engaged time into two types: interactive and noninteractive.

We divide nonengaged time into management/transition, unoccupied/observing, socializing, working on other assignments and temporarily out of the room.

These categories will fit almost anything you can see in a classroom. But if you have other distinctions that apply to your class, feel free to use them. The form also includes room for comments, if you have any questions or want to explain any coding.

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Engaged Time

Engaged time occurs when students work on tasks directly related to the subject they are supposed to be learning.

Engaged time can be interactive or noninteractive. Several studies show that high achieving classes do a lot of engaged interactive work. Classrooms in which students spend most of their engaged time in noninteractive work show poorer results.

Engaged-Interactive

The student is engaged-interactive when working on an instructional task with others (e.g., teacher, aide or other students). The opportunity for feedback or explanation is available as part of the activity. Some examples are:

- Drill and practice
- Discussion
- Listening to a lecture
- Role playing
- Asking questions
- Reading aloud
- Receiving supportive feedback
- Receiving corrective feedback

A student who appears to be listening to a class discussion without contributing verbally is still assumed to be engaged.

Engaged-Noninteractive

The student is engaged-noninteractive when working on an instructional task that is done alone. To get help, the student would have to catch the teacher's attention. Some examples are:

- Silent reading
- Working on written assignments

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Nonengaged Time

A student who is doing something that does not *directly* build skills in the assigned subject is nonengaged. We divide nonengaged behavior into five categories:

1. Management or transition
2. Unoccupied or observing
3. Socializing
4. Working on other assignments
5. Time out of the room

Nonengaged activities are a normal and valuable part of classroom life. But if they take up too much time, they can interfere with learning.

Management/Transition

A student is in management/transition when he or she prepares for a learning task, shifts to a new task, is disciplined, etc. Generally, the student attends to the task at hand; but the task does not lead to increased skill in the subject. (For example, students could wait all day for a teacher to hand out papers and not be better readers.) Management/transition activities include:

- Waiting for an assigned task—for example, right after a room change
- Attending to tasks such as taking roll or distributing papers
- Getting out books or other materials
- Sharpening pencils
- Listening to directions for how to do an activity, i.e., "Fold the paper in half. Write on every other line" (rather than an explanation of subject content)
- Interacting with the teacher for disciplinary reasons
- Waiting for the teacher's help (raised hand or waiting in line)

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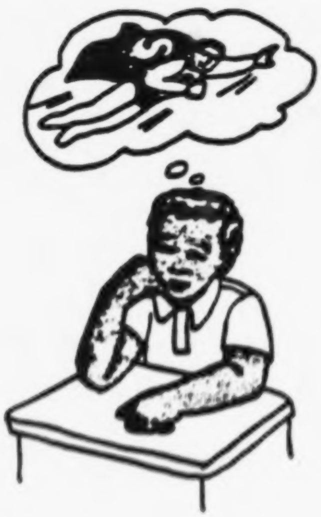
- Listening to class interruptions, such as schoolwide announcements
- Cleaning up

Sometimes the directions for an activity include an example problem. Students listening to directions which cover subject content are engaged. If they are listening to procedural directions (e.g., how to start a form, hints for working quickly), they are in management/transition.

Unoccupied/Observing



An unoccupied/observing student is mentally out of the room—not working on the assigned task and not interacting with the teacher or with another student. Perhaps the student is:

- Daydreaming
- Looking out the window
- Watching other people socialize without taking part
- Playing with pencils or notebooks
- Looking at comic books (if they are not the reading assignment)

Socializing

The student is socializing when interacting socially with other students, with the teacher or with a visitor. Some examples of socializing with other students are talking, laughing, playing or fighting.

The child is socializing no matter who initiates the activity.

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Working on Other Assignments

The student is working on an assignment that does not directly relate to the subject being observed (e.g., reading, math or language arts). When students finish a work assignment early and are allowed to do something else, they are "working on other assignments."

Teachers often assign an activity which does not directly build a basic skill. For example, the teacher may ask a student to draw and color figures that represent spelling words. While this activity can motivate students and may be desirable in small doses, the student is not practicing reading skills. The student could color all day and not become a better reader.

Out of the Room

The student is at school and should be in class, but is temporarily out of the room at the time of the observation.

This category applies to students who:

- Come to class late
- Are dismissed early
- Make trips to the nurse, office or restroom

Cannot Tell

The observer cannot tell what the student is doing. This can happen if the observer's view is blocked or if the student's back is turned.

This code does not fall into either the engaged or the nonengaged categories.

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Finding Observers

You may be able to recruit other teachers, parents or older students as volunteer observers. Aides and resource teachers are often willing volunteers. Some teachers have worked out trades: "You observe my class for 20 minutes on Wednesday and I'll observe yours for 20 minutes on Thursday."

Try to choose observers:

- Who understand your classroom teaching style
- Who have the time available to make a series of observations
- Whom you can talk to easily about the observations

You may not find someone who can observe your class for a whole period. Sometimes you may need to recruit more than one observer. You can still piece together a complete observation of your class if you train your volunteers well and schedule them carefully.

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Setting An Observation Schedule

Teachers don't necessarily teach a subject at the same time each day. But on the observation days you need to schedule set times to teach a subject—unless an observer is available for the entire day.

Observations are done for one subject at a time, so the first step is to select the subject you wish to have observed (reading, spelling, math, etc.). Make three or four observations of the entire instructional time. If you can't find someone to observe for the entire time in one day, use the Plan for Observations to make sure you observe all parts of the class over several days—and that you observe them about the same number of times. (You can copy the blank forms in the Appendix.)

The beginning and end of the instructional time usually involve less instruction and less engaged time than the middle portion. If one part of your class period is observed more often or less often than the others, you'll get a biased picture of class time.

You need several observations of your class. On one day lessons may go better or worse than expected. Over several days you'll get a good idea of how your "typical" class goes.

Try to schedule representative days (not the day before Christmas vacation or the day of a special assembly).

The next page shows how a completed Plan for Observations might look if you use multiple observers.

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Preparing the Observer

Training

Observation is easy to learn—but you should give some training and practice to your volunteers. If a number of teachers in your school decide to try observation in their classes, you can set up a training workshop together. The steps below can help observers to understand the process and definitions. Discuss each point with the observer and make sure that you both understand it the same way.

- Give the observer the set of definitions on pages 8-12. Review these observation categories with him/her. Give real examples of student behavior in each category.
- Talk the observer through the Directions for Observers on pages 19-20. These directions describe the overall process.
- Discuss the completed sample Student Engagement Observation Forms on pages 21 and 23.
- Discuss how you want the Student Engagement Observation Form filled out.

Before Each Observation

- Observers must complete a new form each time they observe a new session, a new subject or a new group of children.
- You will have a number of forms after several observations—so be sure each heading is completely filled out.
- Do you want the observer to identify specific students or just use tally marks? If your class is large, tell your observer whether to focus on certain students or to tally the entire class.

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- Decide how often to record student behavior—one-minute intervals will work with most classes. (You may wish to start at two-minute intervals until confidence builds.)

- Discuss the lesson for the day. What should the observer expect to see children doing? What materials and activities will you use? Will students be working singly or in large groups?

After Each Observation

Discuss the observation results with the volunteer when your class is over (if you can). Did the observer see problems specific children were having? Did some students remain engaged most of the time? If the completed observation form does not match your perceptions, find out what events or activities the observer saw.

What went well? Did an activity seem particularly interesting to some students? Did things happen that you were unaware of? Were some students totally inattentive? Did the observer classify an activity as "working on other assignments" when you thought it related directly to the subject? This debriefing may suggest ways to change some procedures. It can also help clarify categories before further observations are made.

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Directions for Observers

1. Before the Class Begins

a. Get to the classroom before the class begins. Organize your materials. Find a spot where you can see students clearly and yet not distract them.

b. You should have a digital watch, a watch with a second hand or be able to see a wall clock with a second hand.

c. Fill out the top of the Student Engagement Observation Form. Be sure to fill in actual times for the interval schedule labeled observation time, which makes up the top row of the grid. The observation times show when to begin a scan of the classroom.

d. Strategies for observing: For a small class set up a code using students' initials, numbers or letters (such as A, B, C, D). Enter these codes in the proper boxes during observations.

For larger classes (more than ten students), you may have to forego the identification code and just use hash marks. Or, you could select about ten students to represent the entire class and code them only. Select the students ahead of time with the teacher.

e. Establish a plan for scanning the room. Scan in the same order every time. For ten or fewer students, take a mental snapshot of the group. For larger numbers, divide the students into groups of four or five and scan the groups in a set order.

2. How to Code Behavior

a. Sometimes it will be obvious what a student is doing. Other times it will not be as clear—for instance, a student looking up could be daydreaming or actively thinking about the work. If you can't immediately tell whether a child is engaged or nonengaged, watch until you can make a judgment. If you are still unclear after about five seconds, code the child "engaged." If your uncertainty continues across several intervals, make a note about the child under "Comments."

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b. If you cannot see what the student is doing because your view is blocked or the student's back is completely turned, mark the student in the "cannot tell" box.

4 × 8 = 32
5 × 8 = 40
6 × 8 = ?

c. Make one entry for each student in each interval. Sometimes the student will suddenly change behavior while you are watching. In this case, code only the first behavior.

d. Use the "Comments" section to clarify what the class is doing or to clarify a rating. For example:

- Describe what a student or group is actually doing at any particular interval.
- If a student is socializing, note whether it is with another student, with a group or with the teacher.
- State whether an engaged-interactive activity is a learning exercise, a class discussion or personal help.

e. For each interval, the number of students in class should equal the number who are entered in some activity. If students are late to class or briefly leave the room (for an errand or to go to the restroom) code them as temporarily out of the room and count them in the entry for number of students in class.

3. Finding Totals

a. After the class period, total the amounts in each category by adding across the page and entering the figure in the TOTAL column.

b. In each column, enter the "number of students in class" in the bottom square. Then total across the row in the same way as above. Note: If you "cannot tell" what a student is doing during an interval, do not count that student as present in class for that interval.

c. In each column, enter the "number of students engaged" as the sum of the two "engaged" categories at the top of the page. Total these figures across the page.

d. At the bottom of the page, calculate the engagement rate for the class period.

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STUDENT ENGAGEMENT OBSERVATION

Date 10/12
Subject: Reading
Language Arts
Math ✓
Number of Students 25

Grade 6
Teacher or Aide Mr. Jackson
Observer Ann K.
Number of Minutes Between Observations 2

Class Period Begin 1:00 End 1:50
Observ. Period Begin 1:00 End 1:30

STUDENT ACTIVITY

OBSERVATION

OBS. TIME:	1:00	1:02	1:04	1:06	1:08	1:10	1:12	1:14	1:16	1:18	1:20	1:22	1:24	1:26	1:28	1:30	Total
Engaged-Interactive			卌卌 卌||	卌卌 卌卌	卌卌 卌卌	卌卌 卌||||	卌卌 卌卌||	卌卌 |||					|				112
Engaged-Noninteractive											卌卌 |	卌卌 卌	卌卌 卌|	卌卌 |	卌||	卌|	66
Management/ Transition		卌卌 卌							卌卌 卌卌 卌	卌卌 卌卌	卌卌						70
Unoccupied or Observing	||||	卌	||	||	||	||	|||	卌|		|||	||||	卌|	卌	卌|	|||	卌	58
Socializing	卌卌 |||	||	||||	|	||	||||		卌|		||		||||	|||	卌	卌	||||	55
Working on Other Assignment															卌	卌||||	14
Temporarily Out of Room	卌	|||	||	||	|									|	|	|	16
Cannot Tell	|||													||	||||		9

Number of Students Engaged	0	0	17	20	20	19	22	13	0	0	11	15	17	11	7	6	178
Number of Students in Class	22	25	25	25	25	25	25	25	25	25	25	25	25	23	21	25	391

Total Engagement Rate (from Total column) = $\frac{\text{Number of students engaged}}{\text{Number of students in class}} = \frac{178}{391} =$ 46 %

COMMENTS: 1st activity was question/answer on math facts (review)
One student came in almost 10 min. late
2nd activity was working on practice problems... about 5 min. spent on directions and explanation. A few students finished early.

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After the Observation: What Do the Numbers Mean?

In this section we're going to talk about a couple of ways to look at your observation results.

You can expect your observations to reveal typical class patterns and individual student profiles. You will be able to tell:

- The overall engagement rate for your class
- Your balance of interactive and noninteractive instruction
- Which nonengaged behaviors create a problem

In short, you will know whether your class is spending time in a productive way.

Check Observation Times

Your observations should represent typical sessions. Look at the right side of your completed Plan for Observations form. Have you covered the entire class period? Were the days fairly typical, rather than being interrupted by special assemblies or fire drills? If your answer is "no" to either of these questions, you should probably schedule more observations—perhaps as few as one or two—to balance the pattern. For instance, if the first 15 minutes of class are underrepresented, schedule more observations for only that period of time.

Check for Consistent Results

Are your numbers consistent from day to day? To check, you need to compute activity occurrence rates. Gather together all your completed Engagement Observation Forms and fill in the Activity Occurrence Rates worksheet. (See sample, page 29. You will find a blank copy in the Appendix.)

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To compute the occurrence rate in each category for each day, look at your Engagement Observation Forms. Divide the total number in the category for that day by the total "number of students in class" for that day. Your answer will be the percent of time, for that day, that the behavior occurs.

Look at the combined engagement rate figures on the left side of the Activity Occurrence Rate form. Do they differ by more than 20 percentage points for any two days? If not, the class is fairly consistent over the days of observation.

If patterns vary from day to day, you will have to interpret your results more cautiously. Go back to the daily observation records to see what events may have caused the inconsistencies. Review your lesson plans for those days. Note any comments.

Check Class Profile

Look at the total picture of students' activities during each individual observation. Look at the Activity Occurrence Rate form to see if there are distinct patterns of activity. Are some off-task behaviors consistently high? Consider questions such as the following:

- How long did it take the class to settle down and start the assignment?
- How much time was spent on class discussion and other group interactive activites?
- How much time was spent on individual seatwork?
- During interactive activities, how many (if any) students were off-task (socializing or unoccupied), and for how long a period of time?
- How many students were off-task during written assignments?

- How efficiently did the class, as a group, move from one activity to the next?
- How long did students spend waiting for help?
- Did students finish their assignments early, without having other classwork to do?
- How long did it take to clean up and get ready for dismissal?

Look at Individual Student Patterns

You may want to gear some changes to your class as a whole. You may also decide to make some changes aimed at individual students.

Look at the Engagement Observation Forms to see which students have problems staying on task. You may decide to analyze every student in class or only students of particular concern. Obtain totals for each of these students the way you do for the whole class—by completing an Activity Occurrence Rate sheet.

Look for students with low engagement rates. Then find out what caused this pattern. The following problems may appear:

Some students receive less interactive instruction. For example, one child gets to work with the teacher a lot. Another child is always doing ditto sheets in the back of the room. Go out of your way to interact with and involve the child who may be less able or willing to demand your time.

Two or three students always finish first. At any rate, they close their books and start doing something else. They may need different instructional materials—that is, harder or easier tasks, or longer assignments. It depends on why they stopped working. You may have to increase motivational activities or give more discipline.

The next section offers some ideas on how to improve your overall class rates.

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ACTIVITY OCCURRENCE RATES

Teacher Smith

Subject: ✓ Reading ______ Language Arts ______ Math

Class period 10:30 - 11:30

DATE	COMBINED ENGAGEMENT	ENGAGED-INTERACTIVE	ENGAGED-NONINTERACTIVE	TRANSITION	UNOCC./P. OBSERVING	SOC.	WORKING ON OTHER ASSIGNMENT	OUT OF ROOM
9/20	55%	27%	28%	23%	8%	11%	0%	3%
9/21	51	20	31	27	7	13	0	2
9/22	45	10	35	16	18	9	10	2
9/23	54	28	26	23	6	12	0	5
9/24	68	37	31	5	8	5	12	2
9/27	60	32	28	18	12	8	0	2
AVERAGE	56%	26%	30%	19%	10%	10%	4%.	3%

This group tends to have a high engagement rate when interactive activities are used (note the difference between 9/22 and 9/24). But Mr. Smith spends over half (54%) of the engaged time on noninteractive activities.

The averages total more than 100% due to rounding off.

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How to Improve Your Rates*

Engagement Rate

Different factors affect the engagement rate in every class. Teachers also have different values and goals for student learning.

You will have to choose an engagement rate you find reasonable for your own group. Look at your class size, student age and skills, and the nature of the task. Analyze the observations you make. Then decide on a reachable goal.

One study shows that student engagement rates often average 70-80 percent in small classrooms (fewer than ten children). In larger classes an overall engagement rate of 60 percent may be realistic. Of course, these averages include many classrooms. You should aim at a rate that takes into account your own purposes, your students' characteristics and what you find out from your observations.

Engaged-Interactive Rate

Research shows that student achievement responds strongly to involvement with teachers and other students. If your class engaged-interactive rate is less than half of its total engagement rate, you may want to add more interactive tasks to your teaching. Consider using more discussion and review, reading aloud, drill and practice, praise and corrective feedback. Also consider having students work together. Peer tutoring and answer checking are often effective aids to learning.

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*This information is adapted from materials developed by Research for Better Schools.

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Noninteractive tasks such as silent reading and writing assignments are also important, of course. But classrooms that have only noninteractive activities show lower student gain.

One way to increase interactive learning is to move around the room when students are doing seatwork and check with individual students. Comment and offer help.

Nonengaged Activities

Some of your class' nonengaged activities will be dispensable, others will not. You may find that you want to pry some time loose from the overall nonengaged behaviors. For instance, a management task can often be done more efficiently. You will have to make this judgment yourself.

Look at the Engagement Observation forms. Could you get your class to clean up faster? How long do they wait for help? Could you give clearer instructions? Are you allowing too much time to complete tasks?

Below you will find some ideas on how to reduce nonengaged time.

Management/Transition

You will need some "transition" time in the class. How much depends on how often you change activities each period, whether instruction is individualized or grouped and how much discipline the students require. Again, you are the best judge of how and when to shorten "transition" time.

Do you feel that your class could settle down faster and start assignments sooner? Do they take a long time between activities?

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If so, you might explore the following suggestions:

- Develop routines so that students know exactly what to do during transitions. Let students know when new activities are coming up.
- Plan for transitions so that everything is ready and quickly handed out.
- Establish clear rules at the start of the year. Enforce them consistently.
- Make instructions clear and brief.
- Take the lead in starting up—don't wait for things to settle down.
- Arrange the classroom to reduce distractions, interruptions and students moving around. Structure seating and activities so that it is easy to monitor all students.
- Foster good work habits in students, such as keeping a subject notebook, writing down assignments, bringing sharp pencils.

Do students have to wait a long time for help?

- Move around the room to monitor behavior and answer questions as they arise.
- Use monitoring to anticipate student behaviors and head off problems before they occur.
- Check students' progress so that you can anticipate when they will finish, and have the next activity ready.
- Give students alternate or ongoing assignments.

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Does discipline take up a lot of time?

There are ways to stop misbehavior quickly and effectively. Prompt and direct action will influence all who receive it—or observe it. Some discipline guidelines include:

- State expectations for students' behavior clearly.
- Reward good behavior as quickly as possible. Try to minimize punishing misbehavior. Give students nonverbal attention, a privilege or a concrete reward for desirable behavior.
- Give students specific feedback about what they should do and what they were doing wrong. You may wish to do this in individual conferences.
- Pace instruction to keep class work challenging.

Socializing

Socializing and unoccupied/observing activities will generally not occur at high rates for the entire class, but they will often contribute to low engagement for particular students.

Some ways to reduce behaviors like talking and fighting are:

- Separate students who distract each other.
- Reduce transition time (see above).
- Make sure students have other tasks to do, if they finish early.
- Monitor and help students so they can understand the task and stay with it.

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Unoccupied/Observing

Do students spend a lot of time unoccupied or observing?

Some strategies for reducing this time include:

- For young children, plan lessons that are continuous and well-paced to avoid distractions. Use activities in which each step leads to the next.
- For young children, avoid activities where students depend upon input from other students (or on continual teacher explanation and monitoring, unless working with students one-to-one).
- Move around the room and check each student frequently.
- Reinforce good study skills such as following directions, attending to the teacher and volunteering responses. When a student is off-task, praise an on-task student. (Reminders to get back to work do not seem effective.)

Working on Other Assignments

If students spend very much time working on other assignments, they aren't spending the time as stated in the curriculum.

To reduce this "other" time:

- Pace instruction to better fit the child. Make sure you aren't giving too much time for assignments.
- Examine all activities for their direct relevance to the skill.
- Give back-up work that builds the desired skill.
- Keep aware of students who finish early or stray off-task.

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Out of the Room

Some students are temporarily out of the room much of the time. Work with the student and others to control the number and length of their trips to the nurse, office or restroom.

- Set guidelines for when such trips are appropriate.
- You could allow only one student in the restroom at a time. When someone goes out they could flip a card by the door.
- If students take a long time getting to class, work with other teachers to monitor release time.

Beyond Engaged Time

Our main concern in this booklet has been with the quantity of time a class engages in learning tasks. The next step is the quality of the engaged time. This means, among other things, making sure that the materials are suitable for your students and that students are learning efficiently.

Research in the past decade has tried to find effective ways of teaching math and reading skills. This research supports highly structured, teacher-centered classrooms with a warm, friendly atmosphere. Not enough research has been done to prove the value of these approaches in the content areas or for teaching other skills.

Structure

Manage your class in a structured and work-oriented way. Make the instructional decisions yourself, rather than expecting students to completely determine their own activities. Set goals and structure early and stick to them. Have lessons prepared in advance, start class on time, avoid distractions and maintain control.

While teaching basic skills, keep a clear focus in your classroom on academic goals and activities. If the objective is for students to learn math or reading, there is no substitute for activities that build those skills.

Teacher Involvement

Students show higher engagement rates in a supervised situation than an unsupervised one. Therefore, monitor students frequently while they are studying on their own. Be aware of the content they are working on and their success rate. Offer help where needed. Give instruction that includes a high proportion of feedback, practice and comment.

Sometimes it is helpful to have students work in small groups (three to seven) rather than individually. This can make the monitoring job easier, and allow supervision of more students at a time.

Class Atmosphere

Set a warm, supportive atmosphere in the class. Students learn best under conditions that are cooperative, democratic and friendly.

Show personal regard for students by being interested in them, treating them respectfully and avoiding sarcasm. Show that you expect and believe they can learn.

A supportive classroom can be very compatible with an acdemic, work-oriented focus. Most high-achieving classrooms have both these qualities.

Tailor the Materials

Know your students' skills and potential. Then plan and deliver instruction accordingly.

Check that students understand new concepts before you make assignments. Provide students with materials that are relatively easy for them—allowing at least 90 percent correct responses. This will allow practice, repetition and overlearning, which have been found to be important for retaining skills.

Eventually students will move on to more difficult material, but only after they have mastered needed materials. Classes with high engaged time & a high level of success have consistently high achievement.

Ask the Right Questions

Surprisingly, in the elementary grades, factual, single-answer questions seem best to help students learn. These questions provide bit-by-bit successes for children first mastering a skill. Factual questions can ask students for definitions, summaries or inferences. For instance, you can ask children to seek out words that tell a character's feelings in the stories they have read. This requires them to search text and make judgments.

Equal Opportunity

Call on all students equally to insure that all students receive the time, support and instruction they need.

- Pay equal attention to slow, average and quick learners.
- Give slow students enough time to answer.
- Give all students frequent feedback.
- Expect all of your students to learn; require them all to learn as quickly as they can.
- Praise slow students frequently for correct & improved answers. Give good students constructive criticism as well as praise.

All these suggestions can help make your class a more effective one. In general, if teachers establish a class atmosphere in which students are expected to learn and have enough time to do it, greater progress in reading and math will be the result. Students are [illegible] to enjoy their classes as well as, or more than, [illegible] classes in which teaching is a [illegible] job.

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Appendix

OBSERVATION CATEGORIES

Engaged Time

This term applies only to [illegible] to tasks that are directly related to the [illegible] skills in reading, math and language arts. These [illegible] work, silent reading and attending to teacher [illegible] student appears to be listening to a class discussion [illegible] verbally, he or she is still engaged. We [illegible] following subcategories of engaged time:

Engaged-Interactive. The student is engaged in an instructional task [illegible] teacher, aide or other students). Some examples are:

- Reading aloud
- Drill and practice
- Discussion
- Receiving supportive feedback
- Receiving corrective feedback

Engaged-Noninteractive. The student is engaged in an instructional task that does not involve interaction with someone else. Some examples are:

- Silent reading
- Working on written assignments

Nonengaged Time

This term refers to those instances where a student is involved in doing something other than activity directly related to skill acquisition. It includes socializing, unoccupied time and time out of the room. Also included in this category are activities that are assigned in class but are not directly related to basic skill development in reading, math or language arts. The following subcategories of nonengaged time are specified:

Management/Transition. This includes:

- Times when the class is preparing for work, such as when students are getting out books
- Transition times when there is no assigned task for students, such as right after or right before a room change
- Interactions between student and teacher for disciplinary reasons
- Cleaning up
- Taking roll call
- Distributing papers
- Listening to nonacademic directions
- Waiting for the teacher's help
- Receiving a reprimand for misbehaving

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Unoccupied/Observing. Included in this category is the student who is not working on his or her assigned task, interacting with the teacher or interacting with another student. Perhaps the student is:

- Daydreaming
- Looking out the window
- Watching other people socialize without taking part
- Playing with pencils or notebooks
- Looking at comic books (when that is not the reading assignment)

Socializing. The student is interacting socially with other students, with the teacher or with a visitor. Some examples of socializing with other students are talking, laughing, playing or fighting.

Working on Other Assignment. The student is actively working but his or her assignment does not directly relate to the development of the desired basic skills (e.g., reading, math or language arts). When students finish a work assignment early and are allowed to do something else quietly, they are classified in this category. Also included here are those instances where a teacher assigns an activity to students that is not directly related to basic skill development, such as drawing and coloring figures that represent newly learned spelling words. While such an activity is often used to motivate students, it is not considered direct instruction in the subject.

Temporarily Out of Room. The student is present that day, but is out of the room at the time of the observation. Trips to the nurse, office or restroom fall into this category. Students are also counted as out of the room if they have not yet appeared in class, but should be there.

Cannot Tell. The observer cannot see the student well enough to make a classification. This would happen if the observer's view were obstructed or if the student's back were turned and there were not sufficient cues for a judgment.

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STUDENT ENGAGEMENT OBSERVATION

Date ____________
Subject: Reading ____________
Language Arts ______
Math ____________
Number of Students ______

Grade ____________
Teacher or Aide ____________
Observer ____________
Number of Minutes Between Observations ____________

	Begin	End
Class Period	______	______
Observ. Period	______	______

OBSERVATION

STUDENT ACTIVITY																	Total
OBS. TIME:																	
Engaged-Interactive																	
Engaged-Noninteractive																	
Management/ Transition																	
Unoccupied or Observing																	
Socializing																	
Working on Other Assignment																	
Temporarily Out of Room																	
Cannot Tell																	

Number of Students Engaged																	
Number of Students in Class																	

Total Engagement Rate (from Total column) = $\frac{\text{Number of students engaged}}{\text{Number of students in class}}$ = ________ = ________ %

COMMENTS:

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PLAN FOR OBSERVATIONS

Teacher ________________________ Subject: _____Reading Class begins _____

Focus of observation: _____Language Arts Class ends _____

_____Whole class _____Math

_____Instr. group (specify) ____________________________________

_____Indiv. students (specify) ____________________________________

Observation Day Date	Observer	Scheduled Observation Time Begin	End	Actual Observation Time Begin	End	No. of Minutes Observed
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

Comments:

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ACTIVITY OCCURRENCE RATES

Teacher ______________________ **Subject:** ________ **Reading** ________ **Language Arts** ________ **Math**

Class period ______________________

DATE	COMBINED ENGAGEMENT	ENGAGED-INTERACTIVE	ENGAGED-NONINTERACTIVE	TRANSITION	UNOCCUP. OBSERVING	SOC.	WORKING ON OTHER ASSIGNMENT	OUT OF ROOM
AVERAGE								

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AN INTRODUCTION TO ORGANIZATION DEVELOPMENT

John J. Sherwood

Organization development is an educational process by which human resources are continuously indentified, allocated, and expanded in ways that make these resources more available to the organization, and therefore, improve the organization's problem-solving capabilities.

The most general objective of organizational development-OD-is to develop self-renewing, self-correcting systems of people who learn to organize themselves in a variety of ways according to the nature of their tasks, and who continue to expand the choices available to the organization as it copes with the changing demands of a changing environment. OD stands for a new way of looking at the human side of organizational life.

What is OD?

(a) A long-range effort to introduce planned change based on a diagnosis which is shared by the members of an organization.

(b) An OD program involves an entire organization, or a coherent "system" or part thereof.

(c) Its goal is to increase organizational effectiveness and enhance organizational choice and self-renewal.

(d) The major strategy of OD is to intervene in the ongoing activities of the organization to facilitate learning and to make choices about alternative ways to proceed.

Objectives of Typical OD programs. Although the specific objectives of an OD effort vary according to the diagnosis or organizational problems, a number of objectives typically emerge. These objectives reflect problems which are common in organizations and which prevent the creative release of human potential within organizations:

(1) To build trust among individuals and groups throughout the organization, and up-and-down the hierarchy.

(2) To create an open, problem-solving climate throughout the organization-where problems are confronted and differences are clarified, both within groups and between groups, in contrast to "sweeping problems under the rug" or "smoothing things over."

(3) To locate decision-making and problem-solving responsibilities as close to the information sources and the relevant resources as possible, rather than in a particular role or level of the hierarchy.

(4) To increase the sense of "ownership" of organizational goals and objectives throughout the membership of the organization.

(5) To move toward more collaboration between interdependent persons and interdependent groups within the organization. Where relationships are clearly competitive, e.g., limited resources, then it is important that competition be open and be managed so the organization might benefit from the advantages of open competition and avoid suffering from the destructive consequences of subversive rivalry.

(6) To increase awareness of group "process" and its consequences for performance - that is, to help persons become aware of what is happening between and to group members while the group is working on the task, e.g., communication, influence, feelings, leadership styles and struggles, relationships between groups, how conflict is managed, etc.

The objectives of organizational development efforts are achieved through planned interventions based on research findings and theoretical hypotheses of the behavioral sciences. The organization is helped to examine its present ways of work, its norms and values, and to generate and evaluate alternative ways of working, or relating, or rewarding members of the system.

Some Assumptions Underlying the Concept of OD. Using knowledge and techniques from the behavioral sciences, organization development attempts to integrate organizational goals with the needs for growth of individual members in order to design a more effective and fully functioning organization, in which the potential of members is more fully realized. Some of the basic assumptions underlying the concept of OD are as follows:

(1) The attitudes most members of organizations hold toward work and their resultant work habits are usually more *reactions to* their work environment and how they are treated by the organization, than they are intrinsic characteristics of an individual's personality. Therefore, efforts to change attitudes toward work and toward the organization should be directed more toward changing how the person is treated than toward attempting to change the person.

(2) Work which is organized to meet people's needs as well as to achieve organizational requirements tends to produce the highest productivity and quality of production.

(3) Most members of organizations are not motivated primarily by an avoidance of work for which tight controls and threats of punishment are necessary - but rather, most individuals seek challenging work and desire responsibility for accomplishing organizational objectives to which they are committed.

(4) The basic building blocks of organizations are groups of people; therefore, the basic units of change are also groups, not simply individuals.

(5) The culture of most organizations tends to suppress the open expression of feelings which people have about each other and about where they and their organization are heading. The difficulty is that the suppression of feelings adversely affects problem-solving, personal growth, and satisfaction with one's work. The expression of feelings is an important part of becoming committed to a decision or a task.

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(6) Groups which learn to work in a constructively open way by providing feedback for members become more able to profit from their own experience and become more able to fully utilize their resources on the task. Furthermore, the growth of individual members is facilitated by relationships which are open, supportive, and trusting.

(7) There is an important difference between *agreement* and *commitment*. People are committed to and care about that which they help create. Where change is introduced, it will be most effectively implemented if the groups and individuals involved have a sense of ownership in the process. Commitment is most assuredly attained where there is active participation in the planning and conduct of the change. Agreement is simpler to achieve and results in a simpler outcome - people do what they are told, or something sufficient or similar.

(8) The basic value underlying all OD theory and practice is that of *choice*. Through the collection and feedback of relevant data - made available by trust, openness, and risk - more choice becomes available to the organization, and to the individual, and hence better decisions can be made.

Organization Development Technology. Basic to all OD efforts is an attempt to make the human resources of the organization optimally available. Outside consultants often share the responsibility for this process, but they also work toward increasing the organization's own capacity to understand and manage its own growth.

In contrast to management development which is oriented toward the individual manager, OD focuses on groups and changing relations between people. The system - be it a unit of the organization, or the entire organization - is the object of an OD effort.

A frequent strategy in OD programs is the use of an *action-research* model of intervention. There are three processes in an action-research approach, all of which involve extensive collaboration between a consultant and the organization: data gathering from individuals and groups; feedback to key client or client group in the organization; and joint action planning based on the feedback. Action-research is designed to make data available from the entire system and then to use that information to make plans about the future of that system.

Some OD interventions or building blocks of an OD program are the following:

(1) *Team building:* focus is on early identification and solution of the work group's problems, particularly interpersonal and organizational roadblocks which stand in the way of the team's collaborative, cooperative, creative, competent functioning.

A group's work procedures can be made more effective by using different decision-making procedures for different tasks and learning to treat leadership as a function to be performed by members of the group, not just as a role or as a characteristic of an individual's personality.

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The interpersonal relationships within a team can be improved by working on communication skills and patterns; skills in openness and expression of what one thinks and feels; the degree of understanding and acceptance among team members; authority and hierarchical problems; trust and respect; and skills in conflict management.

(2) *Intergroup problem solving:* groups are brought together for the purpose of reducing unhealthy competitiveness between the groups or to resolve intergroup conflicts over such things as overlapping responsibilities or confused lines of authority, and to enhance interdependence when it appropriately exists.

Intergroup problems sometimes exist between different functional groups which must work together, e.g., sales and engineering; or between line and staff; or labor and management; or between separate organizations involved in a merger.

(3) *Confrontation meeting:* is a problem solving mechanism when problems are known to exist. An action-research format is used. The entire management group of an organization is brought together, problems and attitudes are collected and shared, priorities are established, commitments to action are made through setting targets and assigning task forces.

(4) *Goal-setting and planning:* supervisor-subordinate pairs and teams throughout the organization engage in systematic performance improvement and target-setting with mutual commitment and review. Goal setting becomes a way of life for the organization.

(5) *Third party facilitation:* involves the use of a skilled third person to help in the diagnosis, understanding, and resolution of difficult human problems - e.g., difficult one-to-one relationships between two persons or two groups.

(6) *Consulting pairs:* often a manager can benefit from a close and continuing relationship with someone outside his own organization (a consultant, either internal or external to the organization), with whom he can share problems early.

In an effective OD effort each member of the organization begins to see himself as a resource to others and becomes willing to provide help to others when asked to do so. Such attitudes become norms or shared expectations. Once such a norm is established, members of the organization become potential consultants for one another, and the dependence of the organization on outside resources becomes less and less.

A major characteristic of organization development is that it relies heavily on an educational strategy emphasizing ***experience-based learning*** and on the skills such a procedure develops. Thus, the data feedback of the action-research model and the confrontation meeting are examples of how the experiences people have with each other and with the organization are shared and become the basis upon which learning occurs and upon which planning and action proceed. To be sure, OD is not simply human relations training (nor is it sensitivity training) however, openness about one's own experiences - including feelings, reactions, and perceptions - represents a cornerstone of many organizational development efforts. Furthermore, laboratory training experiences are often used to help members of the organization develop more interpersonal competence, including communication skills, ability to better manage conflict, and insights into oneself and into groups and how they form and function. Laboratory training programs are, therefore, a good preliminary step to an organization development effort.

Reproduced from:

The 1972 Annual Handbook for Group Facilitators
J. William Pfeiffer and John E. Jones, Editors
San Diego, California: University Associates, 1972

ORGANIZATION DEVELOPMENT

DEFINITION: Organization development (OD) is a planned and sustained effort to apply behavior science for system improvement, using reflexive, self-analytic methods.

ASSUMPTIONS

1. A system is a complex set of related elements, each of which has some impact upon the others.
2. By changing the system, the individuals within it can also be led to change.
3. Systems need increased abilities to cope with problems which were not envisioned when they (the systems) were created.
4. System members are the most appropriate persons to increase the system's ability to cope.
5. Outside persons can only assist system members in solving their problems.
6. Reflexive, self-analytic methods are more powerful stimuli for change than are adoption of "packages."
7. Organizations are not capable of rapid change.
8. Social psychology, psychology, and sociology are disciplines which can assist in system improvement.

FEATURES

1. System members engage in confrontations.
2. System members use outsiders to assist -- not to solve.
3. Role definition is a key element of OD.
4. Goal clarification is a continuous process.
5. The culture or climate of the system is of primary importance.
6. System members engage in intensive (and extensive) problem solving.
7. The relation of the individual to the system is under constant examination.

ACTIVITIES

1. Training/education which involve direct teaching or experience-based learning (e.g., lectures, exercises, simulations).
2. Process consultation involving observation, assistance, and coaching.
3. Confrontations among and between groups of persons who have had "problems" in the organization -- these sessions are data-based.
4. Data feedback which is the systematic collection of information and the subsequent reporting of that information to guide diagnosis, problem-solving, and planning.
5. Problem-solving.
6. Plan-making.
7. Task forces.
8. Techno-structural activity focussing upon the alteration of the organization's structure, work-flow, and means of accomplishing goals.

ANTICIPATED OUTCOMES

1. Increased organizational "health."
2. Higher morale of system members.

3. Goal clarity.
4. Close and logical relations between ends and means.
5. Greater clarity of roles and responsibilities.
6. Open communication.
7. Systematic (and eased) problem solving.

Adapted from Miles, M. & Schmuck R. Improving Schools Through Organization Development. New York: Basic Books, 1971.

By Nancy Sievert

Staff Development: The Principal's Role

[illegible]

[illegible]

The sign also enables the principal to emphasize to visitors the instruction priorities. He wants the kids in his school to learn and he has taken steps to make sure that they do.

Yes, the demands and pressures on principals are greater today than at any previous time and no let-up is in sight. Schools are complex organizations. The skills and competencies needed to do the principal's job well in the present turbulent environment include, among other things, the ability to adapt to changing conditions.

Moreover, the principal is the agent of change. He or she is the most significant influence in bringing about educational improvement in a school. Research is showing that differences in achievement among schools can be attributed to qualitative differences in principals' leadership patterns.

Thus, because what principals do makes such a difference, we must make time for what is most urgent. We must determine to set aside those voracious time-devourers that accomplish little of real value. Ways must be found to prioritize, delegate, eliminate, modify or simplify the mushrooming number of tasks on the principal's "to do" lists. When we decide that improving instruction is the most important matter we can attend to, it will get done.

Staff development, then, is the on-going process in which effort is directed toward improving the instructional program. It should be tied directly to the goals and objectives of the school, and the principal's role is crucial.

Organization development

Staff development can also be seen as one part of a relatively new concept called organization development (OD). Organization development is both a conceptual framework and a series of strategies for helping schools to become self-renewing systems of people who recognize the need for change and are able to respond with innovative and integrated solutions.

OD aims at improving the instructional program in the context of the school's overall functioning as an organization. Schools are viewed not as clusters of individuals working at separate tasks, but as systems of people working interdependently at particular tasks and moving into coordination with other sets of people as phases are completed. For example, we see this in committees of teachers at different levels working on different phases of a school reading program, then coming together to finalize plans and implement them.

The essence of OD is helping people learn more productive ways of relating to each other to solve problems, identify goals, improve their organizational capabilities and perform the functions to which they have committed themselves. Through a series of training exercises, skills in clarifying communication, uncovering and working with conflict, improving group procedures in meetings and assessing changes are learned and practiced.

Knowledge of OD strategies can help principals recognize that human needs largely determine people's behavior at work. If we know what motivates people, we may be able to help them find satisfaction at work so they will use their energies in productive ways.

Motivation and decision-making

One researcher has shown that at least four basic needs motivate people: activity, achievement, affiliation and power. When they're given the chance, people tend to act in ways that boost their chances of taking the initiative, being successful, experiencing friendship and exercising some degree of influence over their fate. If we ignore these needs in the staff development process, we can expect such counterproductive behaviors as stalling and complaining.

One way to meet people's needs is to show concern for them as human beings, not as tools. Rather than trying to change people's behavior, we can examine our ways of treating them. We can work to create a climate that values interpersonal trust, open sharing of information and interdependence — which requires 1)backing off from taking an authority role and 2) developing collaborative ways of working with people.

Decision-making needs to be shared. A sense of ownership and commitment are gained when people participate in decisions that will affect them. Lack of participation creates frustration, lack of commitment, reduced initiative and lowered morale, if not outright resistance.

Author Sievert is principal of Fremont School in the Alhambra SD

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The principal's dilemma is how to get people involved in decisions that affect them and yet do it in a cost-effective way. At a management seminar, John Jones suggested that the four "Cs" of decision-making are command, consensus, consultation and convenience. There are two concerns here: the quality of the decision and the importance of gaining acceptance for what is decided.

In situations where both the quality of the decision and its acceptance are of little or no concern, then almost any decision-making process will do. That's when convenience — just deciding — is the appropriate governing factor in the decision-making situation. An example would be selection of a color for the library bookends.

When it is of critical importance to gain some acceptance for the decision but the quality of the decision itself is of little or no concern, then it makes sense to use the consultation approach. That is, certain people can be consulted and their points of view considered before the decision is made by the principal. Deciding whether to schedule faculty meetings in the morning or the afternoon is an example of when this approach would be appropriate.

When the quality of the decision is a primary concern, but there is not so much concern about getting people to accept the decision, then it is appropriate to make command decisions. That is when the principal, who has the necessary data and is best informed, uses his or her prerogative to make the decision. Often, in such cases, information used for making the decision is best kept confidential. The dismissal of an employee would be one example. In cases where time is a factor, such as handling emergency situations, command decisions often need to be made.

Finally, when there is equal concern for the quality of what is decided as well as for the acceptance of the decision on the part of the staff, then working to gain consensus is necessary. Gaining consensus is time-consuming and often difficult, but it is essential when quality of decision and acceptance are equally important. Decisions regarding sharing of scarce resources (such as which teachers will have use of the playing field for P. E. when all prefer the afternoon) require consensus.

Start-up strategies for staff development

You are the principal. You've made the decision to commit time and attention to staff development. In what tangible ways can you show your intentions and your involvement to your staff? Here are four positive strategies to get you started:

1. *Focus attention on instructional goals.* Goals need to be clearly stated in a way that lets people know what is expected of them. And even once that is done, unless goals are kept in the forefront of people's attention, they tend to be forgotten. Referring to goals in the weekly bulletin and at faculty meetings and using surveys asking for feedback or opinions (that can later be reported on at staff meetings) on different aspects of the curricular program are ways that communicate your interest and involvement to your staff.

2. *Schedule regular classroom observations.* A systematic plan of classroom observations that is consistently followed is solid evidence of a principal's interest in what and how children are learning. Blocking out one morning a week on your calendar for that purpose and having your secretary guard that time will help keep other activities from getting in the way. So will scheduling several observations and announcing your intention to give this your high priority.

Develop a checklist with teachers of specific things to look for. Be sure teachers understand that the purpose of the observations is to keep you informed so that you can offer help and support to them. Follow up with conferences to discuss the lessons' strengths and any problems noted.

3. *Monitor instructional programs.* Regular monitoring of the instructional program reinforces goals by recognizing them, emphasizing the significance of the teachers' work and offering a chance to reward performance. Asking to see classroom records, teachers' objectives, what skills are being taught in math — all this helps set expectations. Checklists also help keep monitoring consistent and enable you to assist where needed.

4. *Reinforce and reward effective teaching.* Opportunities for rewarding and reinforcing good teaching can come from both classroom observations and monitoring. But with a plan you can selectively reinforce the teaching behaviors you want to encourage in all staff. Recognition of excellence can come in many ways: verbal compliments, a note in a teacher's box, recognition at a faculty meeting, inviting the curriculum coordinator or other persons to observe and talk with the teacher, finding dollars for needed materials or conference attendance all let teachers know you are aware and appreciate what they're doing. ■

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OD READINESS CHECK LIST

J. William Pfeiffer and John E. Jones

General Considerations	No Concern	Mild Concern	Moderate Concern	Significant Concern	Critical Concern
1. Size	4	3	2	1	0
2. Growth Rate	4	3	2	1	0
3. Crisis (potential positive or negative influence)	4	3	2	1	0
4. Macroeconomics	4	3	2	1	0
5. OD History	4	3	2	1	0
6. Culture	4	3	2	1	0
Resources					
7. Time Commitment	8	6	4	2	0
8. Money	8	6	4	2	0
9. Access to People	8	6	4	2	0
10. Labor Contract Limitations	8	6	4	2	0
11. Structural Flexibility	8	6	4	2	0
People Variables					
12. Interpersonal Skills	12	9	6	3	0
13. Management Development	12	9	6	3	0
14. Flexibility at the Top	12	9	6	3	0
15. Internal Change Agents	12	9	6	3	0

Total Readiness Score ☐

OVERHEADS SESSION - D

OVERHEAD D-1

THE TWO MAJOR AREAS OF EFFECTIVE TEACHING ARE: ______________________
____

- WHAT SHOULD BE THE PURPOSE OF A SITE STAFF DEVELOPMENT PROGRAM? ______________________
- WHO SHOULD BE THE LEADER OF SUCH A PROGRAM?
  ____
- CHANGE IS WHAT SCHOOLS ARE ALL ABOUT. DESCRIBE THE STRATEGY WHICH DETERMINES THE RECEPTIVITY OF A STAFF TO CHANGE: ______________________
  ____
- DESCRIBE THE PURPOSE OF INSTRUCTIONAL SUPPORT.
  ____
  ____

(To the trainer: Questions are listed in larger print for use on the overhead projector.)

THE TWO MAJOR AREAS OF EFFECTIVE TEACHING ARE:

WHAT SHOULD BE THE PURPOSE OF A SITE STAFF DEVELOPMENT PROGRAM?

WHO SHOULD BE THE LEADER OF SUCH A PROGRAM?

CHANGE IS WHAT SCHOOLS ARE ALL ABOUT. DESCRIBE THE STRATEGY WHICH DETERMINES THE RECEPTIVITY OF A STAFF TO CHANGE

____

____

____

____

DESCRIBE THE PURPOSE OF INSTRUCTIONAL SUPPORT. ____________________

____

____

____

	COLUMN ONE	COLUMN TWO	COLUMN THREE
Goals	ACQUISITION OF ORGANIZED KNOWLEDGE	DEVELOPMENT OF INTELLECTUAL SKILLS – SKILLS OF LEARNING	ENLARGED UNDERSTANDING OF IDEAS AND VALUES
	by means of	by means of	by means of
Means	DIDACTIC INSTRUCTION LECTURES AND RESPONSES TEXTBOOKS AND OTHER AIDS	COACHING, EXERCISES, AND SUPERVISED PRACTICE	MAIEUTIC OR SOCRATIC QUESTIONING AND ACTIVE PARTICIPATION
	in three areas of subject-matter	in the operations of	in the
Areas Operations and Activities	LANGUAGE, LITERATURE, AND THE FINE ARTS MATHEMATICS AND NATURAL SCIENCE HISTORY, GEOGRAPHY, AND SOCIAL STUDIES	READING, WRITING, SPEAKING, LISTENING CALCULATING, PROBLEM-SOLVING OBSERVING, MEASURING, ESTIMATING EXERCISING CRITICAL JUDGMENT	DISCUSSION OF BOOKS (NOT TEXTBOOKS) AND OTHER WORKS OF ART AND INVOLVEMENT IN ARTISTIC ACTIVITIES e.g., MUSIC, DRAMA, VISUAL ARTS

FUNCTIONS OF COACHING

1. TO PROVIDE SUPPORT AND ENCOURAGEMENT

2. TECHNICAL FEEDBACK NONJUDGMENTAL

   INFORMATION ABOUT EXECUTION OF RELEVANT SKILLS

3. ANALYSIS OF APPLICATION - WHEN T(USE A SKILL APPROPRIATELY

ENGAGED TIME

Engaged Interactive

Engaged Non-Interactive

NON-ENGAGED

Management Transition

Unoccupied

Socializing

Other Assignments

D.H. D-4

STUDENT ENGAGEMENT OBSERVATION

Date ____________
Subject: Reading ________
Language Arts ________
Math ________
Number of Students ________

Grade ____________
Teacher or Aide ____________
Observer ____________
Number of Minutes Between Observations ____________

	Begin	End
Class Period	________	________
Observ. Period	________	________

STUDENT ACTIVITY

OBSERVATION

OBS. TIME:																	Total
Engaged-Interactive																	
Engaged-Noninteractive																	
Management/Transition																	
Unoccupied or Observing																	
Socializing																	
Working on Other Assignment																	
Temporarily Out of Room																	
Cannot Tell																	

Number of Students Engaged																	
Number of Students in Class																	

Total Engagement Rate (from Total column) = $\frac{\text{Number of students engaged}}{\text{Number of students in class}}$ = ________ = ________ %

COMMENTS:

OBSERVATION CATEGORIES

Engaged Time Interactive/Non-interactive
Non engaged time

_______ SILENT READING

_______ CLASS DISCUSSION

_______ p.a. ANNOUNCEMENT

_______ FEEDBACK FROM TEACHER

OBSERVATION CATEGORIES (cont)

_______ LECTURE

_______ SOCIALIZING

_______ DRILL

_______ TRANSITION

SESSION E

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session E - three hours

This three-hour workshop completes the series by introducing the third change strategy, The Concerns-Based Adoption Model.*

Participants will be able to:

- identify the three change strategies
- identify concerns about an innovation
- identify Frances Fuller's level of concern
- graph their stages of concern (SoC)
- be able to read a SoC profile

HANDOUTS:

E-1 Agenda
E-2 CBAM materials as indicated in CBAM overview manual
E-3 Hall (1975) article

OVERHEADS:

CBAM overheads as indicated in CBAM Overview Manual

---

*Information about the Concerns-Based Adoption Model and training in its use can be obtained from:

CBAM Project
R&D Center for Teacher Education
The University of Texas
EDA 3.114
Austin, TX 78712

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session E - three hours

SAMPLE AGENDA

First Hour	Review of previous sessions with emphasis on the Rand Study and I/D/E/A.
Second Hour	CBAM Overview with slide tape.
	BREAK
Third Hour	Hour completion of SoC questionnaire and graph. Discussion of SoC profile.

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session E - three hours

This final session is a review of the change strategies studied so far and an overview of the Concerns-Based Adoption Model, "CBAM."

Activities are provided to give the participants a better grasp of the concept of change as a personal experience and a process needing time.

Researchers have given many insights into the complex relationship between schooling and change. It has been noted that school change is necessary, even inevitable (Harmon, 1972), that schools are not schools unless change is taking place (Goodlad, 1972), yet schools are also complex social institutions where change does not easily occur (Sarason, 1971).

Research also tells us that change is often implemented on a large scale--open schools and new math. These large scale changes haven't had much effect on kids. The organizational structure or the physical surroundings may have change, but the individual changes little. The system simply overloads.

Faced with these complex realities, it behooves practitioners to study this phenomena called change and the implications therein.

Review Change Concepts as introduced in Session C (p. C-6 through C.11)	Rand Study I/D/E/A

The third Change Study, the Concerns-Based Adoption Model, is the topic of our discussion for today.

CBAM "provides a structure for staff development which focuses on the process of change as a personal experience. The process of change by which a person moves through these stages is attended so that an innovation can be implemented" (Edwards, 1981).

In the CBAM model, change is regarded as long term and developmental. Individuals are perceived to need support as they experience change.

The next two hours is an awareness level presentation of the CBAM model.

Read trainers manual following directions for implementing activities

Show slide-tape presentation of CBAM model.

HANDOUTS SESSION - E

FOCUS ON EFFECTIVE TEACHING/STAFF DEVELOPMENT

Session E - three hours

SAMPLE AGENDA

First Hour

Review of previous sessions with emphasis on the Rand Study and I/D/E/A.

Second Hour

CBAM Overview with slide tape.

BREAK

Third Hour

Hour completion of SoC questionnaire and graph. Discussion of SoC profile.

H.O. #E-2 SoCC 54
OER

Concerns Questionnaire

Name ____

In order to identify these data, please give us the last four digits of your Social Security number:

____ ____ ____ ____

The purpose of this questionnaire is to determine what people who are using or thinking about using various programs are concerned about at various times during the innovation adoption process. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about various programs to many years experience in using them. Therefore, a good part of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time. For the completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

This statement is very true of me at this time. 0 1 2 3 4 5 6 [✓ 7]

This statement is somewhat true of me now. 0 1 2 3 [✓ 4] 5 6 7

This statement is not at all true of me at this time. 0 [✓ 1] 2 3 4 5 6 7

This statement seems irrelevant to me. [✓ 0] 1 2 3 4 5 6 7

Please respond to the items in terms of your present concerns, or how you feel about your involvement or potential involvement with ____________________ ____________________ (please specify the innovation). We do not hold to any one definition of this program, so please think of it in terms of your own perceptions of what it involves. Remeber to respond to each item in terms of your present concerns about your involvement or potential involvement with the above named innovation.

Thank you for taking time to complete this task.

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0	1	2	3	4	5	6	7
Irrelevant	Not true of me now		Somewhat true of me now			Very true of me now	

1. I am concerned about students' attitudes toward this innovation. 0 1 2 3 4 5 6 7

2. I now know of some other approaches that might work better. 0 1 2 3 4 5 6 7

3. I don't even know what the innovation is. 0 1 2 3 4 5 6 7

4. I am concerned about not having enough time to organize myself each day. 0 1 2 3 4 5 6 7

5. I would like to help other faculty in their use of the innovation. 0 1 2 3 4 5 6 7

6. I have a very limited knowledge about the innovation. 0 1 2 3 4 5 6 7

7. I would like to know the effect of reorganization on my professional status. 0 1 2 3 4 5 6 7

8. I am concerned about conflict between my interests and my responsibilities. 0 1 2 3 4 5 6 7

9. I am concerned about revising my use of the innovation. 0 1 2 3 4 5 6 7

10. I would like to develop working relationships with both our faculty and outside faculty using this innovation. 0 1 2 3 4 5 6 7

11. I am concerned about how the innovation affects students. 0 1 2 3 4 5 6 7

12. I am not concerned about this innovation. 0 1 2 3 4 5 6 7

13. I would like to know who will make the decisions in the new system. 0 1 2 3 4 5 6 7

14. I would like to discuss the possibility of using the innovation. 0 1 2 3 4 5 6 7

15. I would like to know what resources are available if we decide to adopt this innovation. 0 1 2 3 4 5 6 7

16. I am concerned about my inability to manage all the innovation requires. 0 1 2 3 4 5 6 7

17. I would like to know how my teaching or administration is supposed to change. 0 1 2 3 4 5 6 7

18. I would like to familiarize other departments or persons with the progress of this new approach. 0 1 2 3 4 5 6 7

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0	1	2	3	4	5	6	7
Irrelevant	Not true of me now		Somewhat true of me now			Very true of me now	

19. I am concerned about evaluating my impact on students. 0 1 2 3 4 5 6 7

20. I would like to revise the innovation's instructional approach. 0 1 2 3 4 5 6 7

21. I am completely occupied with other things. 0 1 2 3 4 5 6 7

22. I would like to modify our use of the innovation based on the experiences of our students. 0 1 2 3 4 5 6 7

23. Although I don't know about this innovation, I am concerned about things in the area. 0 1 2 3 4 5 6 7

24. I would like to excite my students about their part in this approach. 0 1 2 3 4 5 6 7

25. I am concerned about time spent working with nonacademic problems related to this innovation. 0 1 2 3 4 5 6 7

26. I would like to know what the use of the innovation will require in the immediate future. 0 1 2 3 4 5 6 7

27. I would like to coordinate my effort with others to maximize the innovation's effects. 0 1 2 3 4 5 6 7

28. I would like to have more information on time and energy commitments required by this innovation. 0 1 2 3 4 5 6 7

29. I would like to know what other faculty are doing in this area. 0 1 2 3 4 5 6 7

30. At this time, I am not interested in learning about this innovation. 0 1 2 3 4 5 6 7

31. I would like to determine how to supplement, enhance, or replace the innovation. 0 1 2 3 4 5 6 7

32. I would like to use feedback from students to change the program. 0 1 2 3 4 5 6 7

33. I would like to know how my role will change when I am using the innovation. 0 1 2 3 4 5 6 7

34. Coordination of tasks and people is taking too much of my time. 0 1 2 3 4 5 6 7

35. I would like to know how this innovation is better than what we have now. 0 1 2 3 4 5 6 7

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PLEASE COMPLETE THE FOLLOWING:

1. Male _____ Female _____

2. What agency or institution do you represent?

3. Briefly describe your job function.

4. What do you hope to learn from this workshop?

SoCQ Quick Scoring Device

H.O. #E-2

_ 1
_ 2
_ 3
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_ 9
_10
_11
_12
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_14
_15
_16
_17
_18

Margin for Scoring Page 1

A

DATE: ____________
SITE: ____________ SSN: ______
INNOVATION: ____________

B

0	1	2	3	4	5	6
3 ___	6 ___	7 ___	4 ___	1 ___	5 ___	2 ___
12 ___	14 ___	13 ___	8 ___	11 ___	10 ___	9 ___
21 ___	15 ___	17 ___	16 ___	19 ___	18 ___	20 ___
23 ___	26 ___	28 ___	25 ___	24 ___	27 ___	22 ___
30 ___	35 ___	33 ___	34 ___	32 ___	29 ___	31 ___

C

___	___	___	___	___	___	___
0	1	2	3	4	5	6

D

Five Item Raw Scale Score Total	Percentiles for Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
0	10	5	5	2	1	1	1
1	23	12	12	5	1	2	2
2	29	16	14	7	1	3	3
3	37	19	17	9	2	3	5
4	46	23	21	11	2	4	6
5	53	27	25	15	3	5	9
6	63	30	28	18	3	7	11
7	66	34	31	23	4	9	14
8	72	37	35	27	5	10	17
9	77	40	39	30	5	12	20
10	81	43	41	34	7	14	22
11	84	45	45	39	8	16	26
12	86	48	48	43	9	19	30
13	89	51	52	47	11	22	34
14	91	54	55	52	13	25	38
15	93	57	57	56	16	28	42
16	94	60	59	60	19	31	47
17	95	63	63	65	21	36	52
18	96	66	67	69	24	40	57
19	97	69	70	73	27	44	60
20	98	72	72	77	30	48	65
21	98	75	76	80	33	52	69
22	99	80	78	83	38	55	73
23	99	84	80	85	43	59	77
24	99	88	83	88	48	64	81
25	99	90	85	90	54	68	84
26	99	91	87	92	59	72	87
27	99	93	89	94	63	76	90
28	99	95	91	95	66	80	92
29	99	96	92	97	71	84	94
30	99	97	94	97	76	88	96
31	99	98	95	98	82	91	97
32	99	99	96	98	86	93	98
33	99	99	96	99	90	95	99
34	99	99	97	99	92	97	99
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R&D Center for Teacher Education, The University of Texas at Austin

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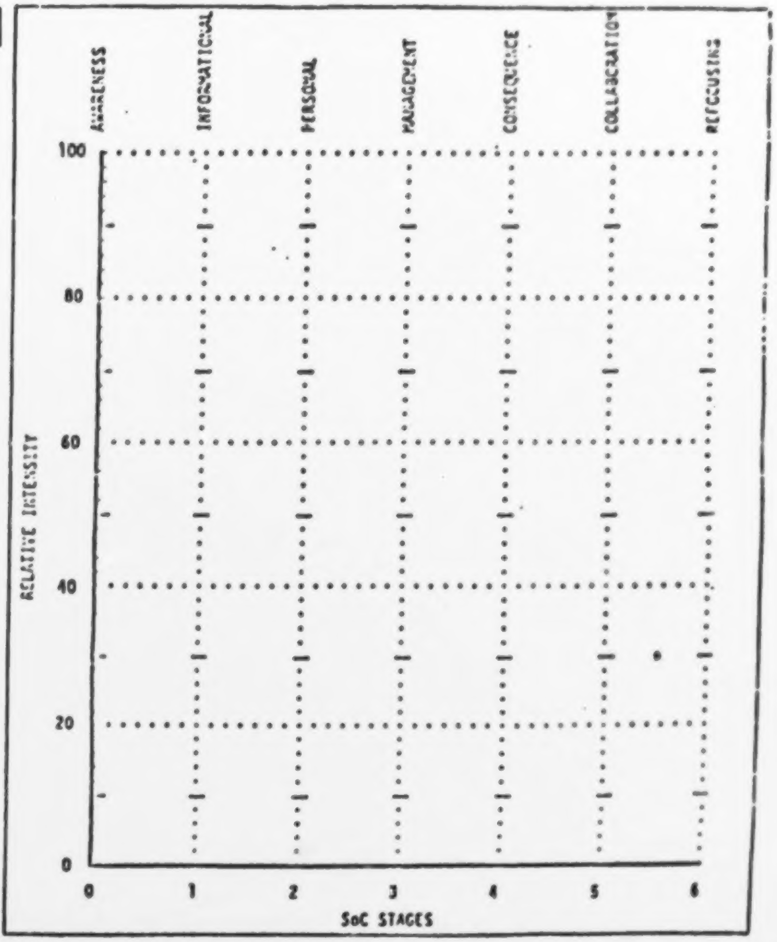

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THE EFFECTS OF "CHANGE" ON TEACHERS AND PROFESSORS-- THEORY, RESEARCH AND IMPLICATIONS FOR DECISION-MAKERS[1]

Gene E. Hall[2]

Preconference Draft for Presentation at the National Invitational Conference on Research on Teacher Effects: An Examination by Policy-Makers and Researchers

"We live in a time of change." How frequently we utter this phrase and, along with our utterance, convey a sense of futility. All round us, we see change: new highways, buildings, millionaires, the seasons. Yet, many feel helpless to affect their own destiny. When we propose what to us is a novel solution, we are told that it has been tried before. We see others as obstructing us, or as having more influence and power (votes, dollars).

In the midst of all of this change, we have lost perspective on what change means and what (who) changes. In education, it seems that the changes that most people recognize most easily are the addition of things to the classroom, new curricula boxes on the shelf. "Everyone is going back to the basics," "all of the walls are gone," buses. Few seem to recognize that change is only accomplished in fact when the individuals that use these things change. Having the walls torn down does not guarantee that the teachers will teach differently, especially during their first year in the new environment.

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[1] The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the author and do not necessarily reflect the position or policy of the National Institute of Education, and no endorsement by the National Institute of Education should be inferred.

[2] The author is a member of an interdisciplinary team involved in this research. Other team members are: William Rutherford, Susan Loucks, Archie George, Beulah Newlove, Brad Manning, and Oliver Bown.

In education our approach to change is to add things. Whenever there is a problem, the cure is to add something; process curricula, new organizational structures, more time, more training, more controls. We have added so many cure-alls that the pile of unused and "ineffective" remedies has become an obstacle. Our focus on changing by adding things and our failure to be sensitive to the changes that individuals must make to use these things have become the problem.

Since most of us easily recognize large-scale, system-wide changes, we have behaved as if the way to change things is to make large-scale, system-wide changes. Thus, national curricula are developed, open concept schools are built, and these many "innovations" are proudly "adopted"--all at the same time. Rationally, we know from various pieces of evaluation feedback that these large-scale changes don't really have all that much of an effect on kids. We also know that there is not widespread diffusion of the many educational innovations that are available. Recently-developed science curricula appear in only about 10% of the classrooms, teachers set up bookcase barricades in open spaces, and teacher educators continue to lecture. At the overview level, there has been addition of curricula, new organizational structure, etc,; however, on the individual level, there is little change--just system overload.

In the "CBAM" Project at the Research and Development Center for Teacher Education at The University of Texas at Austin, we believe that the reason for so little meaningful change is that the focus of change has been almost completely on the large-system level, when the focus should first be on the individuals that must make the change. We do not deny the importance of system level change; however, we think that change at this level will not be accomplished unless the individual members are attended to.

In this paper, I would like to share briefly with you a little about our theory/model, some of our hypotheses, some related research activities and findings, and to discuss some of the implications that we feel they have for policy-makers, evaluators, change agents, adoption agents and decision makers at the local, state and federal levels. It have been our experience that our ideas are seen as particularly useful by members of these various constituencies. Yet, I must also point out that our experience tells us that our ideas and research findings have some implications that many of you do not want to face. Although the data is there and many know that the implications are indeed trued, there are personal, political and economic perceptions that lead people to avoid the obvious course suggested by the data. Let's begin by looking more closely at our model.

The Concerns-Based Adoption Model

The primary focus of our research is the individual--the individual teacher and professor involved in exploring, selecting, and implementing educational innovations. We have been working with more than 1,000 teachers and college professors across the country as they are involved in "adopting" various educational innovations. The conceptual basis for our research is the Concerns-Based Adoption Model (CBAM) (Hall, Wallace & Dossett, 1973) which proposes developmental steps of growth in feelings and skills that are experienced by individuals as they adopt innovations. The CBAM also suggests a process that managers of change can use to diagnose the developmental readiness of individuals during the adoption process and, thereby, more effectively intervene and facilitate the process.

A key assumption of the CBAM is that innovation adoption is a process and not an event. Each of us, when confronted with use of an innovation, does not automatically and instantaneously become a mature, sophisticated and confident user of the innovation. Instead, the change entails developmental growth in concerns about the innovation and in skill in using the innovation. The CBAM describes these steps as Stages of Concern About the Innovation and Levels of Use of the Innovation.

The CBAM was developed out of the experiences of the authors as we worked extensively in schools and colleges with teachers and professors as they implemented various educational innovations. In our work as adoption agents, we lived "in the trenches" with practitioners as they were involved in the day-to-day problems, successes and failures of attempting to implement such educational innovations as recently developed science curricula, competency-based teacher education, new organizational structures and new instructional facilities.

While doing this change agentry work, we kept ongoing logs of our experiences and the problems, feelings and experiences of the innovation users. As the number of institutions and individuals that we worked with increased, it become increasingly apparent that there were recurring patterns, in terms of the kinds of problems that were encountered, and in terms of the kinds of feelings, frustrations and motivations that were reported by the users of the innovations. As these repetitions were identified, the documentation activities that we used were adjusted in order to more closely log and describe the common problems and perceptions that were observed across innovations and across institutions. Out of this extensive field experience and documentation of these experiences, as well as from the literature, the Concerns-Based Adoption Model began to take shape.

A related note can be made here. At this time there is much discussion of the concept of grounded theory, that is, theory that is based on real world experiences and phenomena rather than theory that has been developed in some ivory tower. Perhaps the latter could be referred to as "arm chair theory." As I have attempted to briefly document above, the CBAM is very much grounded in the real world experiences of the developers and through a series of case studies grounded in the experiences of other change agents and adoption agents as they have been involved in working with classroom teachers and college and university professors.

Concerns About the Innovation

In addition to real-world experiences and the change literature in general, the CBAM is also tied to a set of research studies that Frances Fuller (1969, 1972) conducted and reported as she conceptualized the Concerns Theory for teacher education. In our work with colleges and schools it became readily apparent to us that the concept of concerns was not limited to preservice and inservice teachers as they progress through a teacher education program. Concerns are part of the change process as experienced by individual educators involved in implementing various innovations as well. Thus, one of the two key dimensions of the Concerns-Based Adoption Model is the concerns of the innovation users. This dimension has been defined and described as Stages of Concern About the Innovation. It is hypothesized that as individuals move from unawareness and nonuse of an innovation to ultimate, highly sophisticated use of the innovation, their "concern" move through identifiable stages as well. There appears to be a somewhat developmental progression in the kinds of concerns that innovation users have about their use of an innovation.

It was hypothesized that as individuals first become aware of and consider using an innovation, they have much more intense self concerns. Their questions include "How much of my time will this take?" "I need to know more about what kinds of materials will be required if I am going to use this," "What does my principal (department chairperson) think of my using this innovation, and how will it affect my salary and promotion?"

As use of the innovation begins, the user has more task concerns. Expressions such as "I'm spending all of my time in planning," "Decision making seems to take forever," "I still have to do my planning outside of team meetings," "Getting all of the preassessment and postassessment graded is consuming all of my time,' and "I'm having no time for other kinds of activities," are heard.

After many of these task-oriented issues are resolved, the innovation users may proceed to more intense impact concerns. These are exhibited through such expressions as: "I am working how I can refine my use of this innovation in order to get more student learning," "I would like to work with others in using this innovation because I think we can get more accomplished this way," "I'm wondering if there are other innovations or ideas that would help in my use of this innovation and make it even more effective in terms of student outcomes." In total, seven Stages of Concern were hypothesized to be a part of an individual's affective field in relation to an innovation. These Stages of Concern are summarized in Figure 1.

Figure 2 is a plot of the hypothesized relative intensity of the different Stages of Concern over time. We are hypothesizing that there is a kind of "wave motion" from left to right of intensity of concern as a use becomes more sophisticated in using an innovation. Moving to higher Stages of Concern, however, is not solely dependent on accumulating years of experience with the innovation. Concerns reflect motivations, needs,

STAGE OF CONCERN	DEFINITION OF CONCERN
0 AWARENESS	No indication of interest in or concern about the innovation.
I INFORMATIONAL	Expresses a general awareness of the innovation and learning more about it. The user seems to be unworried about himself in relation to the innovation. The potential adopter considers substantive aspects of the innovation in a selfless manner inquiring about general characteristics, effects, and requirements for use. Information needs and interest are of a more cursory nature reflecting general non-committal feelings, limited evaluation and minimal personal investment. satisfactions, worries and frustrations. If the lower Stages are not resolved, then the higher Stages are not likely to emerge.
II PERSONAL	Reflects uncertainty about the roles played by the individual user and of the demands placed upon him, including analysis of his role in relation to the reward structure of the organization decision making and consideration of potential conflicts with existing structures or personal commitment that have financial or status implication of the program for self and colleagues may also be expressed.
III MANAGEMENT	Expressions about the process of using the innovation and the best use of information and resources. Statements focus on issues related to efficiency, organizing, managing, scheduling, and changing time demands.
IV CONSEQUENCE	Indications of exploration of impact of the innovation on clients in one's immediate sphere of influence. Expressions about relevance for clients, evaluation of client outcomes, including performance and competencies, and how his use of the innovation can be changed to increase client outcomes are stated.
V COLLABORATION	Focus is on increasing impact on clients through collaboration with others regarding use of the innovation.
VI REFOCUSING	Indications of user's exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative.

Figure 1. Stages of Concern About the Innovation

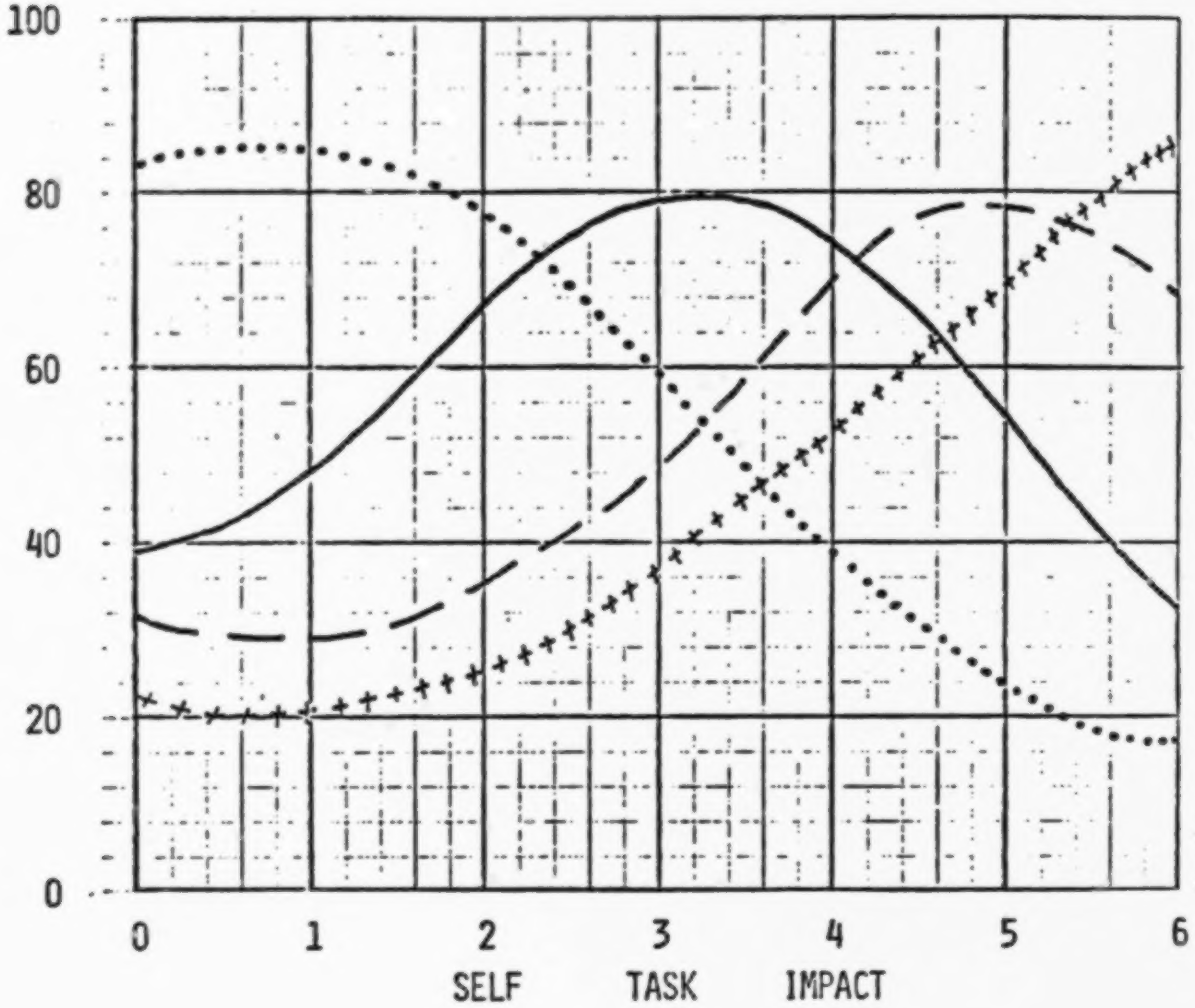

Figure 2. Hypothesized Development of SoC

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satisfactions, worries, and frustration. If the lower Stages are not resolved, then the higher Stages are not likely to emerge.

Levels of Use of the Innovation

Although concerns about the innovation are considered to be very important and serve as one primary dimension of the Concerns-Based Adoption Model, an equally important dimension is the actual behavior exhibited by each innovation user. In the CBAM, it is hypothesized that the behaviors demonstrated by an innovation user can also be described and identified along a developmental stairway. It should be emphasized that this dimension, the Levels of Use of the Innovation (LoU) (Hall, Loucks, Rutherford, & Newlove, 1975) focuses on the behaviors of the innovation user and attempts to eliminate from consideration the feelings or affect that the innovation user has about the innovation. The emphasis here is on what the innovation user is doing with the innovation.

The Levels of Use dimension (see Figure 3) also involves a hypothesized developmental progression. The Levels of Use progression moves in general from an orienting time to a decision to use, to a management oriented kind of use of the innovation, and ultimately to an integrated use of the innovation. The LoU dimension is not at all limited to classroom behaviors, but takes into account user behaviors at all times and in all places relative to the innovation. For example, the person at the Orientation Level is looking for information (at a professional meeting) and considering the strengths and weaknesses of using the innovation (by talking with others) and is involved with acquiring information (by reading brochures) and assessing the potential gains and losses associate with use of the innovation (by estimating time and dollar costs).

LEVELS OF USE	DEFINITION OF USE
0 NON-USE	State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.
I ORIENTATION	State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.
II PREPARATION	State in which the user is preparing for first use of the innovation.
III MECHANICAL USE	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
IVa ROUTINE	Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.
IVb REFINEMENT	State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.
V INTEGRATION	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.
VI RENEWAL	State in which the user reevaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

Figure 3. Levels of Use of the Innovation

It is hypothesized that the kinds of behaviors that the innovation user demonstrates during the orienting level of use are altogehter different than the kinds of behaviors that would be found when the innovation user is at some other level. For example, at the "Mechanical" Level of Use, which is commonly demonstrated by first-time users of an innovation, the user is looking for ideas and techniques that will make his use of the innovation more efficient rather than soliciting general, descriptive information as s/he would be at the Orientation Level. At the Mechanical Level also there is a more disjointed and uncoordinated use of the innovation. The user is heavily involved with management. The user's guide may be close at hand and referred to quite often. The day-to-day logistics of use of the innovation require a great deal of the user's time and energies.

At a later time, it has been hypothesized that innovation users' behaviors involve more refinement in use of the innovation, and changes in use focus specifically on increasing learning outcomes. At an even later level of use, the innovation user may begin to reach out to colleagues and begin collaborative use of the innovation.

Often, one's first impression of LoU is that it is a very rigid sequence and does not allow for variation in the innovation. In fact, one of the key characteristics of LoU that has to be determined before an individual can be assessed is the nature of the changes in use of the innovation that are being made. The Decision Points, which are included in the full operational definition of LoU (see The LoU Chart, 1975) have as their basis the type and extent of changes that are being made. Rather than LoU representing a description of adoption as application of the innovation in its pure form in a new setting, LoU focuses on the changes in use, the "adaptations," if you wish, that individual users make. For example, changes in management techniques are indicative of the Mechanical Level. The presence or absence of changes and the kinds of changes that are made determine the Overall Level. Even the most teacher-proof curriculum box entails the user's development of new skills and varying the approach to using the innovation as these skills are learned and problems are encountered.

The Bigger Picture

The Concerns-Based Adoption Model in its entirety takes into account many other variables besides the individual innovation user's Stages of Concern (SoC) and Levels of Use (LoU) of the innovation. Ultimately, it is essential that the whole morass of the user system be looked at--that is, an entire school or school system must be taken into account as well. However, the perspective of the CBAM is that the primary focus must be upon the individual innovation user. The user system variables can then be looked upon in relation to how they influence and affect the concerns and use of each of the individuals. Concerns and use are considered to be more easily handled manifestations of the composite user system. The various individuals' concerns and use are then placed within the context of the entire user system, its climate, its organizational structures, its communication channels, its available resources, etc.

In relation to implementing innovations, at an even broader level there can usually be identified one or more resource experts who are available to aid and facilitate in the implementation effort. We refer to these experts, who are knowledgeable in use of the innovation and also in change agentry, as adoption agents. The adoption agent is able to call upon various kinds of resources that can be used to facilitate the implementation effort. The adoption agent represents a resource system of from very limited to very elaborate scope. This resource system may be completely informal, consisting mainly of a principal, or be a formal institution, such as a school or school system, in which the adoption agent serves as a staff development specialist. Or the agent may be with a separate agency altogether, such as a regional lab or Title III Center. Wherever based, the adoption agent has resources available as well as technical knowledge and skills that can be brought to bear to facilitate the implementation effort.

As illustrated in Figure 4, the CBAM and its fuller picture sees the adoption agent as linked to a series of resources, constantly probing the members of the user system to assess their concerns and use of the innovation. Based upon this diagnostic data, the adoption agent is able to select interventions that will be efficient, effective and personalized for facilitating the implementation effort.

Perhaps it is important to point out at this time some other assumptions underlying the CBAM that were not mentioned earlier. First, we are assuming that the innovation being adopted is worthwhile. If the innovation is not worthwhile then the normal movement across stages and levels that we are hypothesizing will not occur. Those of you who are knowledgeable of concerns Theory will recognize this phenomenon immediately. The early concerns of innovation users will not progress to later stages of concerns if the innovation is not seen as one that will be worthwhile. Pushing the innovation will result in counter-implementing behaviors on the part of the potential users. Another assumption we are making and are trying to emphasize is that innovation adoption can be effective, efficient, economical, and personalized. Decreeing that teachers will begin IGE or that a college or state will implement CBTE does not mean that individuals will "use" the innovation. By being aware of some of the problems inherent

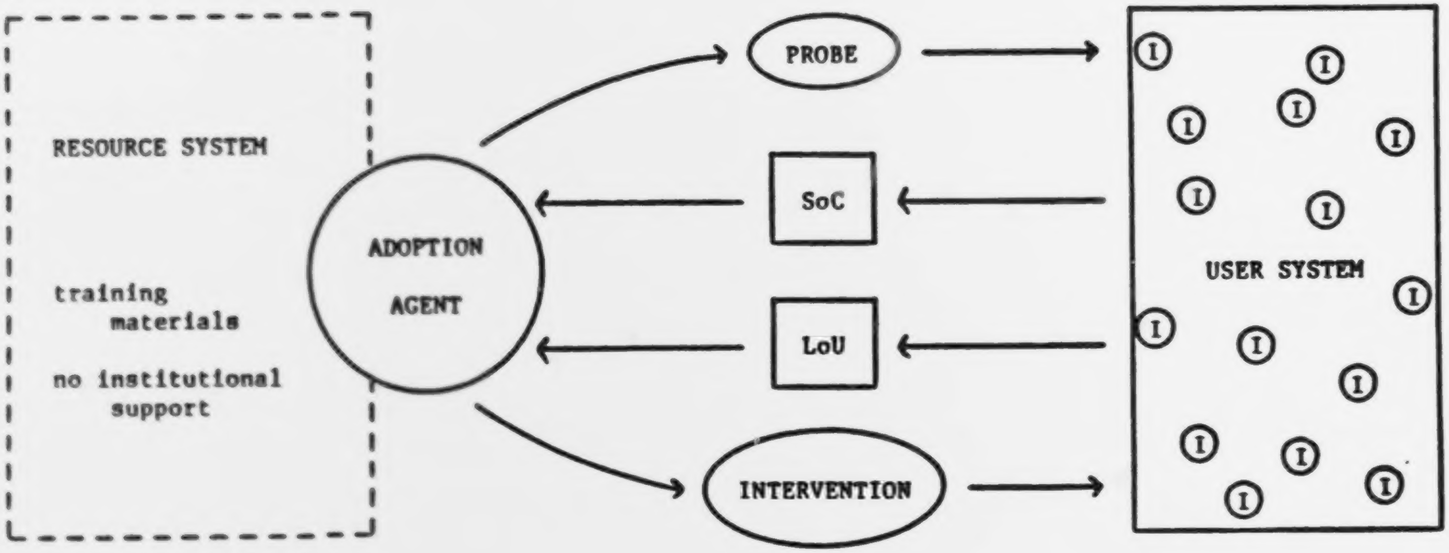

RESOURCE SYSTEM
training materials
no institutional support
ADOPTION AGENT
PROBE
SoC
LoU
INTERVENTION
USER SYSTEM
I

Figure 4. The Concerns-Based Adoption Model as Applied by an Outside Adoption Agent with Limited Resources

in the implementation process and having some hand-holds, we think that those who are responsible for facilitating implementation can be more effective in doing their work. And those who are using the innovation can more easily develop the necessary skills and use the innovation effectively with less anxiety and counterproductive energy investment.

CBAM Research

Our present research effort entails developing measures and conducting research studies that will lead to initial empirical verification of the Stages of Concern and Levels of Use dimensions. The research is focused around four key questions:

1. Are there differentiable Stages of Concern About an Innovation?
2. Are there differentiable Levels of Use of an Innovation?
3. Are concerns about and use of an innovation "developmental?"
4. How are concerns about and use of an innovation related to each other?

Using these four questions as a basis for our work, the Procedures for Adopting Educational Innovations Project is involved in four work efforts. The Work Components are: (1) Measurement Development, (2) Cross-Sectional Studies, (3) Longitudinal Studies, and (4) Immediate Utility and Heuristic Studies.

Measuring SoC and LoU

In order to answer the first two questions, that is, do concerns and use exist, it was necessary to develop measurement systems for assessing each and then to conduct a series of reliability and validity studies. The measurement development effort began in the fall of 1973 and has resulted in a 35-item checklist for assessing Stages of Concern About the Innovation and "focused" interview for assessing Levels of Use of the Innovation. These two measurement systems have been through a series of reliability and validity studies.

Development of the Stages of Concern Checklist began with a large sample of teachers and professors who were asked to express, in writing, their concerns about an innovation being adopted at their institutions. These statements and others that were generated by adoption agent notes and from first-hand experiences were classified according to the Stages of Concern as described in the CBAM. The items were refined and a Likert scale was constructed for use with 195 of the items. This prototype measure was responded to by 366 classroom teachers and college professors who were asked to indicate the degree to which each statement represented their current concerns about an identifiable innovation. The resultant data were then factor analyzed, and the factors rotated toward the hypothesized structure (i.e., the defined SoC). The 35-item Stages of Concern Checklist was then constructed by selecting from among the strongest items (factor loadings greater than 0.5) on the rotated factors.

The SoC Checklist consists of seven scales, each of which contains five items. The measure has been analyzed in several reliability and validity studies. One week test-retest correlations on the seven scales ranged from .65 to .86. The internal consistency (alpha coefficients) of the scales ranged from .80 to .93, and the alpha coefficient for the total score was .96.

For measuring Levels of Use, a "focused" interview technique has been developed. The interview appears to the user as a general conversation about what they are doing with the innovation. The interviewer uses a branching technique based on the defined decision points which separate each level. Specific probes are used to gain further detailed information which serves as additional data points for increasing confidence in the final LoU determination. For research purposes, the LoU interview is tape recorded and subsequently rated by trained raters. Rater reliability coefficients are generally in the .64 to .81 range.

An interesting outcome of this measurement development-initial verification effort is worth point out. Initially the Levels of Use dimension consisted of a Level IV, call the Independent Level. As originally hypothesized, this Level encompassed all individuals who were using the innovation reasonably well by themselves and were making changes in their use to increase student impact. However, based on the data collected in the 74-75 academic year, it became apparent that there were actually two kinds of innovation users that were being classified together as Level IV: those who were comfortable in their use of the innovation and were changing little, if anything; and those who were actively changing how they used the innovation in order to enhance student outcomes. Thus, Level IV was divided into Level IV-A for Routine innovation users and Level IV-B for Refinement users. Across the innovations we have studies, 66% of the users are at LoU IV-A.

Research Design

In order to address the question, "are the phenomena of concerns and use developmental," we first conducted a series of cross-sectional studies in which stratified samples were selected based on years of experience with each innovation. Thus, each sample has a range from those not using the innovation and not involved with it at all, to those who are just beginning to use the innovation, to those who have been using it for three or four years, and finally to those who have been using it for five years or longer. With this stratified sample, we were able to explore whether or not the various stages and levels occur and to look at any patterns that emerge in relation to years of experience with the innovations.

We are not at all intimating that time is the sole, or even most important, predictor for effecting advancement in concerns and use. However, it seemed to be the best variable to use as the basis for selecting a stratified sample that would give us an estimate of the existence of the various levels of use and stages of concern that the research questions were addressing.

Following the cross-sectional studies, we have repeated data collection on the same samples involving ourselves in a two-year longitudinal study of individuals as they gain experience in using the innovations of teaming in elementary schools and modules in colleges. Thus, at the end of the 75-76 academic year, we will have all and spring SoC and LoU data on the samples for two academic years. We will then be able to begin to look at how individuals change over a two-year period and how the dimensions of SoC and LoU change over a two-year period. We are also conducting several small case studies with relatively simple curriculum innovations in which we are documenting more closely the advancement of the Stages of Concern and Levels of Use, again to test the "developmentalness" of concerns and use.

Findings from CBAM Research

The research studies that we have been conducting to test whether or not SoC and LoU exist and whether or not they are developmental have employed several different innovations and have involved both classroom teachers and college and university professors. The innovations that have been used in elementary school samples include teaming, individualized instruction in reading and mathematics, and the Science Curriculum Improvement Study. In colleges and universities we have been studying the adoption of instructional modules in teacher education institutions. We have also conducted several small-scale pilot studies of workshops and small-scale implementation efforts where personnel involved with the implementations were interested in having diagnostic or evaluative data.

The two innovations that we have researched the heaviest in the last two years have been the use of instructional modules in teacher education institutions and team teaching in elementary schools. With both innovations, concerns and use data are being collected several times during the two-year period. Data is being gathered on approximately 400 college professors and 400 teachers for their respective innovations. The data were analyzed according to the Stages of Concern and Levels of Use of the individuals; this data is also being related to other variables such as years of experience with the innovation.

Stages of Concern About the Innovation

Based on the reliability and validity studies, we are confident that the concerns phenomenon exists. To answer the question of whether or not concerns are developmental, the cross-sectional study data were prepared so that comparisons of concerns with the amount of experience with the innovation could be made. In order to remove bias due to a particular innovation and to make scores on different stages readily comparable, percentile scores were computed based on combined data from modules and teaming. Figure 5 is a graphical representation of the SoC percentile scores of teachers with different years of experience with teaming. Due to the nature of the questions being asked, identification of patterns and trends in the data seems to be more valid than conducting a series of tests of statistical significance. The following trends can be noted (for more detailed reporting on this data, see Hall & Rutherford, 1975):

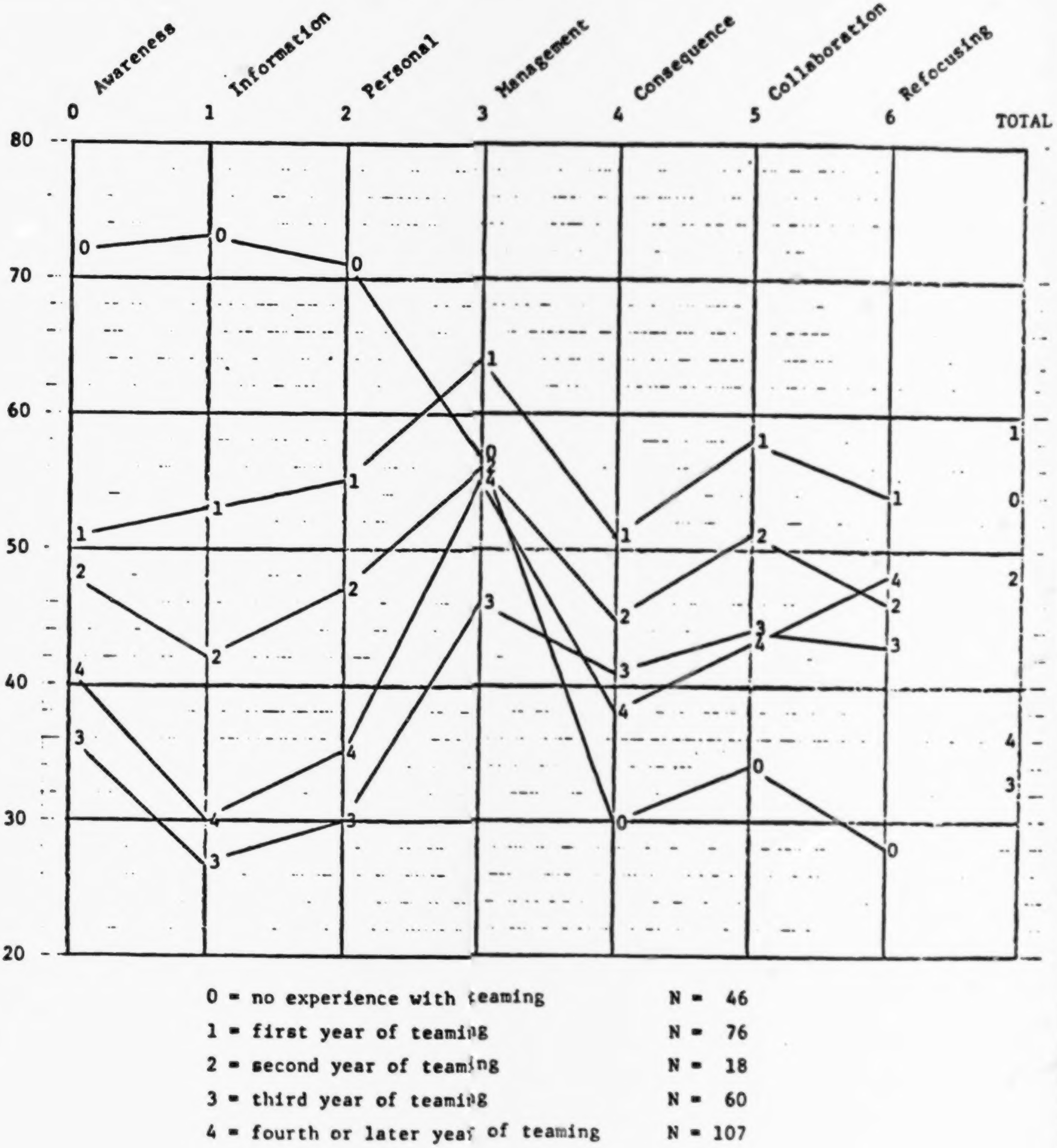


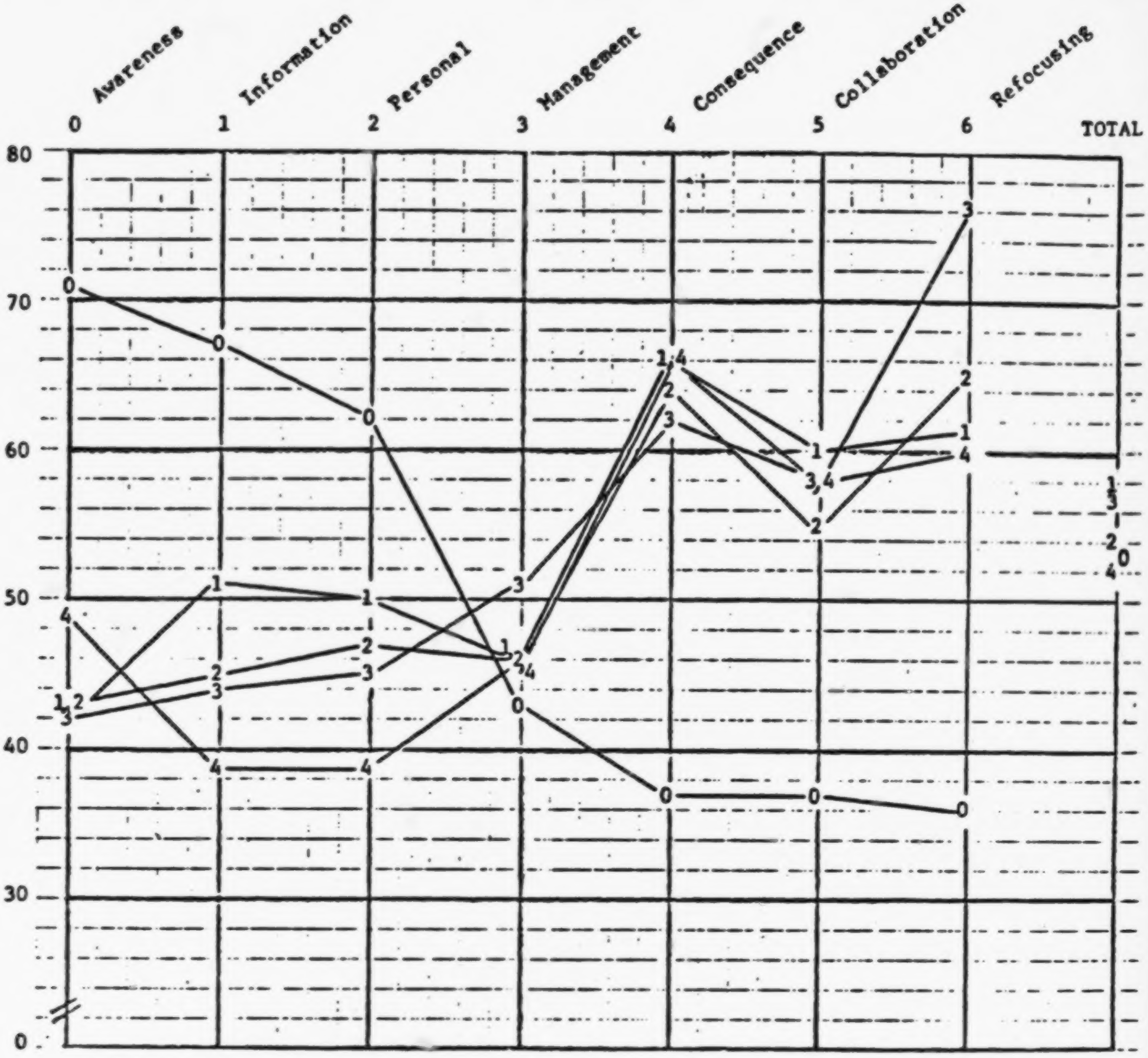
Figure 5. Distribution of Teachers' Concerns About Teaming According to Years of Experience with Teaming

Trend 1. As many experienced adoption agents would expect, the most outstanding pattern in the data is the distinctive profile of those teachers who are not involved in teaming. Their Stage 0, 1, and 2 concerns are particularly intense in comparison to those of teachers who are teaming and in comparison to their own scores on Stages 4, 5, and 6. The profile is very similar to what we had hypothesized for nonusers.

Trend 2. Another identified pattern that the experienced adoption agent would predict is that, in general, it appears that the more years of experience teachers have with teaming, the less intense their concerns are about it.

Trend 3. A third and less likely to be predicted pattern is the relatively low level of Stage 4 concerns. Stage 4 concerns are those that have to do with the impact and consequences of the innovation on learners. This stage has not been scored low by users of other innovations. We suspect that teachers do not see teaming as having direct impact on children, or perhaps it is just that other Stages of Concern are more intense.

In looking at the module concerns data, a similar picture emerges (see Figure 6). Again, the classic nonuser concerns profile is readily apparent. With the module users, however, it can be noted that the shift to the hypothesized concerns profile of the experienced user occurs quickly. First year module users as a population already have many of their management concerns resolved and are expressing more intense concerns of a consequence nature. The only area that seems to be shifting dramatically is the increase in Stage 6 concerns.



0 = no experience with modules N = 91
1 = first year of module use N = 48
2 = second year of module use N = 35
3 = third year of module use N = 28
4 = fourth or later year of module use N = 50

Figure 6. Distribution of Professor's Concerns About Modules According to Years of Experience with Modules

For the sample as a whole, generalizations about this Stage 6 shift have to be approached with caution. In general, it appears from our clinical analyses that with increasing experience, module users become interested in looking for other ideas and making adaptations in their module use that will increase the learning outcomes of students and the diversity of experiences that are available to them.

It also should be pointed out that the Stage 1 (Information) and Stage 2 (Personal) concerns decrease annually as the module users apparently become more knowledgeable and confident about what they are doing with their use of modules. Our anecdotal information suggests that this shift downward in terms of Stage 1 and Stage 2 concerns is also characteristic of those institutions where there is active support and resources for using modules. Clarity of this support must be present, otherwise most people probably would not continue to use modules for four years or longer. It should be kept in mind, however, that this is data from the large sample, and when broken down by institution concerns profiles do not always indicate a shift to high Stage 6 with increased experience.

In summary, the concerns data on both teaming and modules leave a distinct impression that there is a classic nonuser concerns profile similar to what was hypothesized and that the user concerns profile appears to move through some developmental progression although the rate of movement and the shape are dependent on both time and on the characteristics of the institution's support systems. It is important to point out also that the characteristic user profiles seem to vary with innovations and with the make up of the sample, either classroom teachers or college professors. For example, Figure 7 illustrates the shift in concerns of a small group of experienced kindergarten teachers who were introduced to an innovative

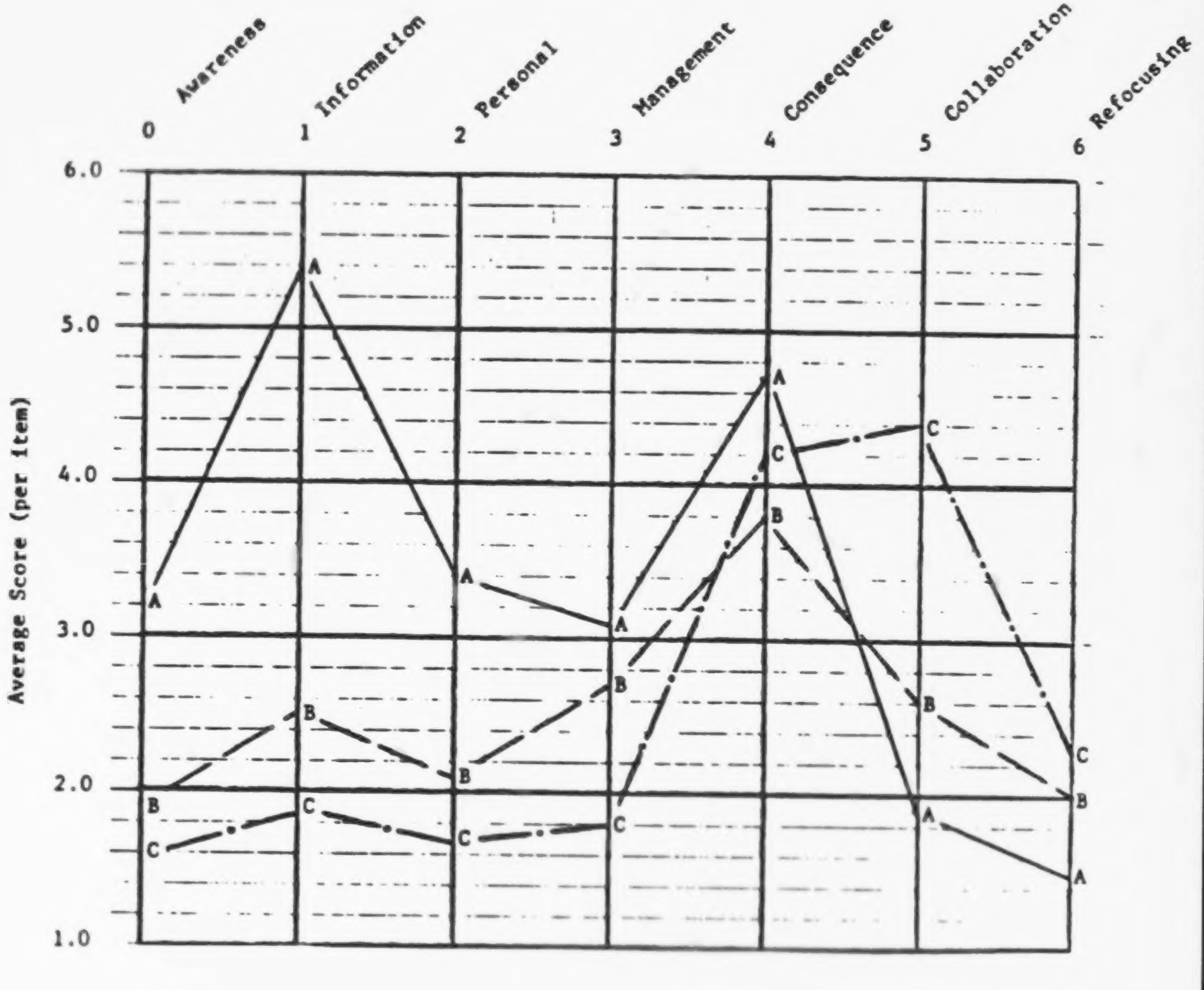


Figure 7. Concerns of Teachers Using SEDL--Thinking and Reasoning

curriculum for the kindergarten being developed by the Southwest Educational Development Laboratory. The data show their concerns before an intensive summer workshop (A) and immediately after the workshop (B) and after they used the materials for several months (C). In this sample, Stage 4 concerns are consistently high. I would suggest that kindergarten teachers are inherently more child-oriented and in whatever they are doing this concern stage will be high.

Levels of Use of the Innovation

As illustrated in Figure 8, each Levels of Use was represented in our cross-sectional/longitudinal samples of the two innovations, teaming and modules. From this summary of LoU distribution it is quite apparent that the most dominant Levels of Use is IV-A for both innovations. Levels of Use V and VI individuals are relatively rare. I suspect that this is true within the universe, particularly in terms of Level VI. It appears that there are very few Levels of Use VI people at any one time with regard to a particular innovation. The skills and time demands that are involved, as well as the cognitive abilities that are required to function at a Levels of Use VI, severely restrict the possibility of an individual functioning at LoU VI for a very long period of time, if at all.

We are just now beginning to look at the movement in LoU data from fall 74 to spring 75. Figure 9 summarizes the first look for the innovations of modules and teaming. Several apparent trends are indicated by these data:

1. LoU 0 people tend to stay there.
2. LoU I people go back to LoU 0, go ahead to LoU II, and also continue LoU 0 explorations.
3. LoU III people tend to move to LoU IV-A, although some move on to LoU IV-B.

LEVELS OF USE	FALL 1974		SPRING 1975	
	Teaming	Modules	Teaming	Modules
O	5	13	7	15
I	10	31	3	23
II	2	9	4	12
III	20	10	9	6
IVA	57	20	61	25
IVB	5	13	13	17
V	1	1	2	1
VI	1	2	3	1
	N=368	N=277	N=397	N=255

Figure 8. Percentage Distribution of Overall Level of Use for Two Innovations

	SPRING LoU							
FALL LoU	0	1	2	3	4A	4B	5	6
0	5	0.8	0.5	0.5	0.5			
I	3	9	4	0.8	2	0.3		0.1
II	0.3	0.8	1.5	1	0.6			
III	0.5	0.8	0.5	3.1	8	3	0.3	0.6
IVA	0.8		0.3	1.5	30	7	0.8	1
IVB			0.1	0.1	4	3		
V					0.1	0.6		0.1
VI					0.6	0.5	0.1	

Figure 9. LoU Shifts from Fall 1974 to Spring 1975
Reported in Percentages

4. LoU IV-A people in general do not move. Those that do, move to IV-B.
5. LoU IV-B people stay there or move to LoU IV-A.
6. LoU VI people move back to IV-A or IV-B.
7. Some LoU III and IV-A people move to LoU VI.

In general, it appears that there is not a linear development of Levels of Use, especially once users reach LoU IV-A. In the sample as a whole, there are a variety of ways that movement takes place. However, we are finding that some individual institutions show definite movement by a large part of the users toward the same LoU. We suggest that this movement can be associated with certain adoption strategies, interventions and user system conditions, as well as some characteristics of the innovation. Exploration of the reasons for LoU movement is one of the chief directions that we would like to take in our future research.

As beginning steps toward this research, Brad Manning (1975) has been developing The Trouble-Shooting Checklist (TSC) which adoption agents can use to systematically assess institutional variables and conditions that could support or retard innovation adoption. On another front, Ollie Bown has been developing the Professional Environment Profile (PEP) which is completed by the individual members of the user system. The PEP is being designed to assess the innovative climate as perceived by the individuals and their need for innovative activity.

Implications for Decision-Makers

The preceding sections have attempted to describe in general the ideas and concepts involved in our research and initial verification of the Concerns-Based Adoption Model. I have described some of our research activities including measurement development and some of the research findings that we have processed to date. There are many different implications that can be drawn from our work and it has been interesting to watch people with different perspectives focus on very different ones. I hope that our research and the CBAM offer each of you at least one "Aha" from your perspective. I would like to spend a few minutes discussing some of the implications we think our work has for policy-makers. However, we also think the research has something to offer change agents, evaluators, and other practitioners as well.

The Legitimacy of Self-Concerns. All of us would like to think that we always function at the impact concern level. However, it is a basic finding of our work that everyone, when first involved with a new innovation, will have relatively intense self concerns to some degree. Rather than being intolerant of people for having self concerns, I think it is time that we recognize that it is fully legitimate and that it is our function as adoption agents and policy/decision-makers to aid in the resolution of self concerns and facilitate the movement towards more task and impact-related concerns. In our planning we need to anticipate self concerns and initiate actions to accommodate and resolve them. The crime should not be to have self concerns, but to not accept their legitimacy and address them constructively.

Innovation Bundles. One of the problems that we have had in our research is determining just exactly what the innovation is that we are focusing on. It doesn't really matter how we as innovation developers or product disseminators define the innovation. In order to research its effects we have to define the innovation from the user's perspective. thus, the textbook definition does not always apply. How the innovation is defined in one user system may not be the same in another. This has become a major problem recently with the development of large-scale, highly complex and catalytic "innovations." For example, take the innovation of Individually Guided Education (IGE). IGE is commonly referred to as an innovation. Yet, for our purposes, we were able to identify several different innovations within it, such as an administrative reorganization, teaming, individualized instruction, multi-age grouping, and so forth. Each one of these innovations is a part of the innovation bundle of IGE.

We think that it is critical for IGE facilitators and change agents involved with other innovation bundles to be able to effectively sort out the real Stages of Concern and Levels of Use of the innovation users with regard to each component of each bundle in order to provide relevant assistance and guidance to the users. For example, we know of instances where IGE facilitators have conducted very well planned workshops on criterion-referenced evaluation in reading which is an intervention targeted at the impact concern level for the innovation of individualized instruction, while the participants in the workshop were in the first year of teaming and had their most intense concerns at the self level about the innovation of teaming. Sorting out the innovations in such an innovation bundle is an important first step.

Interventions. This lead to a related implication of our work. We think that interventions could be more systematically thought about and planned if consideration were given to Stages of Concern and Levels of Use. With the all too limited resources and skills that we have consuming teacher and facilitator time with interventions targeted toward "irrelevant" innovations is extremely costly. This is also true when the selected adoption strategy (overall game plan) employed to implement the innovation is not fully thought out in terms of its consequences for the concerns and [illegible]

For example, in the area of teacher education, many states and many colleges have mandated or decreed the establishment of Competency-Based Teacher Education (CBTE) programs. When change is decreed, there is not an automatic initiation of use of the innovation, but rather a marked increase in Stage 2 Personal concerns which results in less interest and less healthy exploration of the innovation and much more activity devoted to developing rationales for why the thing won't work.

I am not attempting to say that we can always avoid mandates. However, if something is going to be mandated, then the interventions that accompany the mandate need to take into account the likelihood of a significant increase in self concerns which will have to be addressed before movement toward sophisticated use of the innovation is likely to occur.

System Overload. Another aspect of our work has focused on the overall game plan that is employed when an innovation is first explored, decided upon and ultimately implemented. This game plan is what we refer to as an adoption strategy. One adoption strategy that relates back to the innovation bundle discussion is one we refer to as the Multiple Adoption Design or M.A.D. We know of several schools where as many as 16(!) innovation bundles as complicated as IGE and CBTE are being "adopted." Each of these innovation bundles requires additional outside personnel in the school, staff development activities and conflicting signals and requirements in terms of use.

The result of this we call system overload (Kennamer & Hall, 1975). With regard to any one of the innovations, Stages of Concern and Levels of Use can be identified. If SoC and LoU were identified and sorted out for all of these different innovations, it would be impossible to focus on anyone of them long enough to accomplish very much. In practice, this results in the grapevine's reporting which innovation's representative will be in the school for that day, then that's the innovation that is pulled off the shelf for use. Much more serious thought must be given to the systemic and systematic planning of innovation adoption in schools and colleges if we are going to get the pay off that we wish.

Evaluation. While on the subject of "pay offs," there are also some implications in our work for evaluators. For example, we have been involved in an evaluation study in which 10 schools were selected to implement IGE and 10 other schools were matched with these according to SES and various other variables. The evaluators then conducted a classic study of the effectiveness of IGE using standardized achievement tests in reading and mathematics as a part of their criteria. In general, they found what many others have found--that there were no significant differences in learning between the IGE and comparison schools.

One of the reasons, we suspect, that there were no significant differences has to do with the fact that the evaluation data was collected at the end of the first year of implementation. We suspect that most individuals during the first year of implementation are at best at the Level of Use III, mechanical, use of the innovation. With many innovations, particularly ones as complex to implement as IGE, this probably means that the outcomes that are being attained are likely to be worse, at least initially, than they would have been if the innovation had not been implemented at all.

Another interesting implication also derives from our research of Levels of Use. We were fortunate to be able to collaborate with the evaluators in this study and to collect Levels of Use information on the teachers (Loucks, 1975). We determined that only 84% of the IGE teachers were in fact "using" individualized instruction in reading while 49% of the supposed comparison group were "using" individualized instruction in reading. Thus, in fact, nearly as many of the comparison group were using the innovation as the supposed treatment group. Comparing achievement scores of these two groups obviously does not validly demonstrate the effectiveness of individualized instruction in reading. We suspect that evaluators need to take into account Levels of Use when they are involved in evaluating curriculum.

Time. I mentioned at the beginning that there are some implications of our research that many decision-makers and policy-makers do not wish to face. Probably the largest one of these is the issue of time. T...I...M...E.... The CBAM concepts, our research data and the experiences of practitioners add up to the fact that implementing even relatively simple innovations takes time. Implementing any innovation and achieving a high level of use of that innovation requires more than a one- or two-day workshop and a cheerful "God Bless You." With complex, highly catalytic innovations and innovation bundles implementation can take three to five years. This is especially true if there is very limited or incorrectly targeted facilitation.

Although all of us can see the data and know that this may be true, decisions are still made to implement four and five different innovation bundles in one school at the same time. It is assumed that other innovations can be implemented in the next year, and very little thought is given to whether or not the innovations implemented the second year compliment at all those implemented in the first year. It is also continuing to be assumed that summative evaluation studies of the effects of the innovation can be successfully completed during the first year of implementation. We think that at this point, we not only have a model and clinical experience that suggest that this is not so, we are also accumulating a large data base that affirms it. Based on this, we would make two strong recommendations. First, there should be restrictions on how many innovation are being "adopted" by an institution at any one time. Second, the nominal time for users to reach LoU IV-A (Routine) should be published with the promotional materials for that innovation and support for implementation should cover that time period.

Planned change by adaptive systemic data-based decision-making. My last comments have to do with planned change. We believe that as much attention needs to be given to the adoption of innovations as is presently being given to their development. We have attempted to point out some of the implications of implementing too many things concurrently and the system overload that results. We have attempted to point out that implementing innovations requires time and that various individuals move at various rates; just because people say the innovation is in the classroom or that people are using an innovation does it mean that they really are.

Change at the institutional level is accomplished only when the various individuals within the institution develop skill and confidence in using the innovation. This is true whether the innovation is a process or product. Our research is finding that individuals develop at different speeds with regard to their concerns about an innovation and in terms of their use of the innovation. As is described in the entirety of the Concerns-Based Adoption Model, we think that it is possible to reduce the trauma of change and make change more efficient, effective and personalized by taking into account the concepts and procedures that have been discussed in this paper.

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DIMENSIONS OF THE CBAM

STAGES OF CONCERN (SOC) ABOUT THE INNOVATION

STAGE	TYPICAL EXPRESSIONS
0 AWARENESS	I DON'T KNOW ABOUT IT.
1 INFORMATIONAL	I WOULD LIKE TO KNOW MORE.
2 PERSONAL	HOW WILL I BE AFFECTED?
3 MANAGEMENT	IT TAKES ALL OF MY TIME.
4 CONSEQUENCE	I AM CHANGING SOME THINGS TO INCREASE OUTCOMES.
5 COLLABORATION	I NEED TO WORK WITH OTHERS.
6 REFOCUSING	THERE MIGHT BE SOMETHING BETTER.

LEVELS OF USE (LOU) OF THE INNOVATION

LEVEL	TYPICAL BEHAVIORS
0 NON USE	NO ACTION.
I ORIENTATION	READING BROCHURE.
II PREPARATION	TRAINING WORKSHOP.
III MECHANICAL USE	LOGISTICAL PROBLEMS.
IVA ROUTINE	NO CHANGES.
IVB REFINEMENT	EVALUATES OUTCOMES.
V INTEGRATION	WORKS WITH OTHERS.
VI RENEWAL	LOOKS FOR DIFFERENT WAY.

Procedures for Adopting Educational Innovations Project
Research and Development Center for Teacher Education
The University of Texas at Austin

OVERHEADS SESSION - E

Overheads to be used in this session are included with the CBAM slide show overview presentation.

APPENDIX A

Study 1

CLINICAL PRESERVICE TEACHER EDUCATION

Synopsis

Purpose

The overall purpose of the Clinical Preservice Teacher Education study (Griffin et al., 1983) was to describe the people, practices and outcomes of the student teaching experience in two settings with attention given to the characteristics of the participants, their interactions, and the nature of the contexts within which student teaching takes place. The following three questions were addressed:

1. How do the personal, professional, and demographic characteristics of the cooperating teachers, student teachers, and university supervisors impact the student teaching experience?

2. How do the formal and informal institutional contexts influence the student teaching experience?

3. What is the nature of the classroom experience in the preservice clinical setting?

Participant and Site Description

Two universities participated in the study. (Pseudonyms have been used to identify all participating individuals and institutions to protect their anonymity.) From State University, a large public institution, 44 student teachers, 43 cooperating teachers and 13 university supervisors participated in this study. Metropolitan University was a large private institution located in an urban setting. Forty-nine student teachers, 45 cooperating teachers and 4 university supervisors participated from this institution. The total sample therefore consisted of 93 student teachers, 88 cooperating teachers, and 17 university supervisors. Within the sample a subset of 20 student teachers, 20 cooperating teachers, and 9 university supervisors were selected for more intensive examination. Those participants assigned to this group composed the "intensive sample." The remaining cooperating teachers, students teachers, and university supervisors made up the "general sample."

Data

While quantitative data alone was collected from the general sample, both qualitative and quantitative data were collected from the "intensive sample." Data sources included personal journals, audiotapes of conferences and interviews, classroom observations, and university documents as well as a collection of quantitative instruments. These quantitative instruments were designed to measure such characteristics as empathy, locus of control, flexibility, self-esteem, conceptual level, cognitive style, vocabulary skills, educational preferences, teacher concerns, and a measure of the character of the work life of teachers, among others.

Findings and Conclusions

Major findings were classified with regard to participant characteristics, interactions among participants and the context in which these interactions were played out. Additionally, conclusions suggested by aggregates of findings are suggested.

Participant Characteristics

Findings. Few site differences were noted among any of the quantitative instruments. An analysis of the demographic and background information for each group of participants indicated no significant differences among the groups. In addition, a look at all quantitative data revealed no systematic differences between the general and intensive samples thus lending generalizability to the findings derived from the indepth study of the smaller group. The participants did however differ by role on a few of the constructs.

As one would logically predict, student teachers were more concerned with other's perceptions of their personal inadequacies, than were their more experienced colleagues. For other characteristics there were few differences across role groups; participants reported similarly high self-esteem, empathy, strong locus of control, and progressive educational preference.

On the other hand, cognitive abilities as measured by *The Quick Word Test* (Borgatta & Corsini, 1960), differed according to participant role within the intensive sample. Student teachers scored lowest (15th percentile), cooperating teachers scored at the 50th percentile, and the university supervisors average score was at the 63rd percentile.

Conclusions. These data led to the conclusion that, for the most part, our sample held similar characteristics not only across settings, but across role groups as well; the most startling difference being the vocabulary measure. Given that the vocabulary measure can be considered a proxy for general intellectual ability, one could speculate that those entering the teaching force are not as intellectually able as their experienced counterparts. (This speculation was reinforced when participants reported their high school standings.)

In sum, participants, for the most part, were more alike than different. Secondly, the concern expressed in the popular press regarding the deficient abilities of those currently entering the teaching force was partially reinforced by the scores of student teachers on the vocabulary measure.

Context

Findings. Contexts were examined both in terms of the individual schools and classrooms as well as the institutions of higher education involved. Student teachers were placed in classrooms which could be characterized in a variety of ways (e.g., low income, multiple ethnic groups; high income, predominantly anglo; suburban; urban, etc.). The universities involved in this study varied as well. Whereas one university was a large state supported institution, the other was a large private university located in an urban area. Perhaps the most interesting difference between the two institutions was at the university supervisor level. While the state university employed graduate students to supervise student teachers, as a part-time job, the private institution used individuals with permanent, professional appointments. These appointments at the private institution were funded jointly by the school district involved. In fact, all of these supervisors had "risen from the ranks" of the public school system where they were now supervising students teachers.

Although all cooperating teachers were provided with much information from the universities regarding the student teaching experience, all cooperating teachers reported either not having received enough information or any information about the general goals, purposes and requirements of the program.

Regardless of the institution of higher education, or the public school involved, all student teachers found comprehensive orientations to their school settings helpful.

Conclusions. Regardless of the participating university, or the public school involved, student teaching tended to move along in a similar fashion across all settings. This is especially noteworthy given the differences not only in the public schools themselves, but in the training of the university supervisors as well.

Interactions

Findings. Transcribed conferences showed that cooperating teachers made 72% of the comments during meetings with their student teachers. When student teachers did talk, most of that talk could be characterized as simply acknowledging what their cooperating teacher had said. The topics included, for the most part, discussion of situation specific issues and their solutions with little if any attention given to a general base of knowledge with regard to teaching. These issues mostly involved specific materials and methodology with little attention given to goals for students or evaluation of classroom students. In addition, conferences contained little if any evaluative information directed toward the student teachers. Cooperating teachers however did make judgmental remarks about their student teachers in their personal journals. On the other hand, student teachers requested more "constructive criticism."

Student teachers also made evaluative comments about their cooperating teachers in their journals. They spoke of them in a generally positive fashion using such interpersonal terms as "warm," "loving," "kind," etc. These journal, conference, and interview data not only provided a rich description of the kinds of interactions that took place between cooperating teachers and their student teachers, but revealed that most did not have any set time for planning and conferencing. In fact, long-range planning was not seen in one-half of the settings.

Conclusions. Conferences were dominated by cooperating teachers and were characteristic of those held by superiors and subordinates rather than interactions between professional and beginning professional. Because the content of these conferences focused on situation specific information about materials and methods, cooperating teachers may have neglected other areas of importance due to the time factor alone. While student teachers benefitted from having many examples to add to their bank of experiences, the lack of attention to student goals and evaluation may be a problem when these student teachers move into their own classrooms which may not be in the same or a similar setting.

Cooperating teachers may need to be guided not only in providing student teachers with a more generalized knowledge base but with skills in evaluating their student teachers as well. Student teachers needed more formative feedback on their weaknesses. Although student teachers liked their experiences, often they were unaware of the severity of the weaknesses and made no attempt to improve.

In addition, the lack of set planning and conferencing times left student teachers unaware of what cooperating teacher's plans were until shortly before the student teachers were to teach. Opportunities for indepth discussion of goals and plans for student progress as well as day-to-day activities were often not provided.

Study 2

CHANGING TEACHER PRACTICE: AN EXPERIMENTAL STUDY OF INSERVICE CLINICAL TEACHER EDUCATION

Synopsis

This study was an attempt to develop a link between research findings and potential users. The research findings came from studies of effective teaching and studies of change. These two bodies of research findings were integrated in an intervention strategy aimed at causing effective staff developer behaviors, effective teachings, and ultimately, positive pupil outcomes. The potential users were persons responsible for building level staff development in a school district. The study used findings from research on teaching as content for a planned intervention and research on teacher and school change as the basis for a delivery system for that content. These two bodies of information were combined into a specific change strategy, which was introduced to staff development persons in an ongoing school setting. Participants were observed for treatment effects upon staff developer behaviors, teacher behaviors, and on-task student behaviors.

The Intervention

The teacher behaviors forming the content of the inservice training have been identified by the line of research generally referred to as "teacher effectiveness research." An operational definition of the effective teacher emerged from this line of research: The effective teacher is the teacher whose classes regularly score higher on standardized achievement tests than do classes of other teachers after entering differences among classes are statistically controlled. Specific behaviors were grouped into the following categories.

The "Effective" Teacher

1. Plans & prepares for class
2. Actively presents the lesson
3. Interacts with students in situationally appropriate manner
4. Conducts practice over new material
5. Monitors seatwork
6. Holds students responsible for assignments
7. Plans rules & procedures
8. Actively presents rules & procedures
9. Holds students responsible for behavior
10. Reacts to students' behavior consistently

While there are other conceptions of good teaching which view teaching as an art or as a job requiring certain philosophical or psychological orientations, the Changing Teacher Practice study was only concerned with recent findings in classroom-based research and not the assumptions underlying this particular approach to the study of teaching.

A set of research-based conclusions about school change guided this effort. These conclusions, more often than not, emerged as a consequence of post-hoc analyses of efforts to innovate in schools. One principal finding of change-oriented research is that attempts to change are often situation-specific. That is, the contexts in which the change efforts take place vary widely and the variation appears to produce equally variable effects if the change strategy does not account for it. Therefore, the CTP intervention had as a deliberate component the opportunity for staff developers to select strategies and teaching behaviors that, after systematic reflection about situation-specific school variables, fitted their setting. The intervention was implemented with the staff development persons such that the conclusions from the change literature were consciously attended to, while at the same time the persons charged with system staff development made the primary, situation-specific decisions about how to move forward with the change strategy.

The strategy proposed a set of options for working with teachers and focused participants' attention on the need to make reasoned and rational selections from the set. Staff developers were not required to focus on any or all of the research-derived teaching behaviors but to select the ones that were most appropriate for the teachers with whom they worked. This strategy was based on the assumption that school leaders can provide instructional leadership to faculty groups if they are helped to focus their behavior and if they have a knowledge base from which they can work.

Research on the process of change provides a description of various practices which have been found to be positively associated with the successful implementation of innovations. It provides conceptualizations of instructional leadership and teaching that are coherent and that could serve as rallying points around which to organize practice. For the RITE study this research was translated from the sometimes painful jargon of the research community into the more conventional language of schools. This translation was accomplished in some instances in print by the resource materials provided to participants and in others interpersonally by the RITE research team during the intervention. The strategy was conceptually and practically linked to ongoing processes and expectations in the school setting. The strategy's demand was to consider and act upon the perceived match between school/classroom characteristics and a set of research-based options for leadership and teaching practice.

These broad areas of leader behavior were more sharply defined in operational terms and presented as part of the CTP intervention in the form of a list of desired staff developer behaviors. The descriptive listing is neither exhaustive nor absolute but is logically generalizable and predictable in terms of expected results.

Successful Staff Developer Practices

1. Focus on teacher behaviors
2. Identify specific, concrete resources & available technical assistance
3. Provide teachers with opportunities to interact with one another about teaching & schooling
4. Provide teachers with opportunities to observe one another & to discuss what was observed.
5. Provide teachers with opportunities to plan together
6. Provide teachers with opportunities to implement their plans
7. Diagnose school- & classroom-specific regularities
8. Diagnose individual stages of concern of teachers
9. Attend school & classroom regularities & teachers' concerns in formulating inservice activities
10. Include the building administrator in activities designed to help teachers be more effective
11. Work with teachers on adaptation of teaching strategies according to the characteristics of students, the classroom & the school
12. Provide in-classroom technical assistance (e.g., coaching) to teachers
13. Link teachers to technical assistance outside the immediate school environment & provide concrete resources

14. Provide teachers with feedback which is objective, concrete & focused

15. Provide consistent, ongoing assistance to teachers

16. Adapt staff development behavior according to personal & organizational characteristics of "users"

17. Use teacher time to deal with teacher problems, issues & concerns

18. Communicate expectations clearly & precisely

19. Interact with teachers in friendly & positive ways

20. Provide teachers with evidence that "teachers can make a difference" in pupil outcomes

21. Demonstrate knowledge of "effective" teaching as revealed by research

22. Engage teachers in problem identification, solution formulation & testing activities

23. Reflect upon the effects of his/her behavior & use that reflection as a basis for decisions about maintenance or modification of that behavior

Sample

A treatment group-control group quasi-experimental design was used to to assess the impact of this intervention. A representative group of 10 individuals who were responsible for working with teachers in an effort to promote more effective teaching and school improvement in the selected district were identified. Each was assigned to one group of five, matched as closely as possible according to role, SES of school, prior experience, years in the position, and reputation for effectiveness. One of each pair was randomly assigned to the treatment group and one to the control group. Two teachers from among the group with whom each staff developer worked were selected by staff developers. Those 10 teachers working with the staff developer treatment group constituted the teacher treatment group, the other 10 constituted the teacher control group. Students of the treatment group teachers constituted the treatment group students. Students of control group teachers constituted the control group students.

Findings and Conclusions

Treatment group staff developers demonstrated slightly more than twice as many of the desired staff developers behaviors as did the control group. The results of a Mann-Whitney test indicate that this difference is statistically significant at the .01 level. The within group means were also in favor of the treatment group in that the highest mean for the control group was lower than the lowest mean for the treatment group.

What seems to have happened with the treatment group staff developers is that they used the relatively unconventional leadership behaviors (e.g., adaptation of their own behaviors according to their teachers, provision of technical assistance outside the school, providing teachers opportunities for interacting and planning together, etc.) and focused those behaviors on teaching. The finding that there was such a dramatic difference between treatment and control staff developers in terms of focusing on teaching supports the possibility that the CTP intervention provided school leaders with a body of knowledge about classroom life that was coherent, organized and, one suspect, meaningful to teachers.

The intervention used with the staff developers affected the teaching behaviors of the treatment group teachers in the desired direction. The greatest differences in teaching effects were seen in two important components of the teaching process: planning and presenting. These differences were seen whether the content of that teaching process was academic or whether it was rules and procedures for classroom activity.

Practitioners in this study were neither disdainful of nor resistant to lessons learned from systematic inquiry. Although the study did not specifically address this issue, participant self-reports at the conclusion of the study testified to its importance in their decisions to adopt the strategy in schools and classrooms.

In sum, the implications of the implementation of the CTP strategy in terms of research into practice suggest that similar interventions will be positively viewed and acted upon when research is seen as directly related to the problems and issues in the setting, is relatively familiar to participants in terms of practical activity, is understandable conceptually and linguistically, and can be subjected to adaptation depending upon the character of the setting. Findings from this deliberate attempt to bridge the gap between research and potential users suggest that practitioners will use the results of research.

When the study was completed and the findings were available, the district adopted the CTP intervention for 175 elementary and middle school principals and resource teachers.

Study 3

A STUDY OF STATE MANDATED BEGINNING TEACHER PROGRAMS AND THEIR EFFECTS

Synopsis

The purpose of this research was to describe how certain state mandated induction programs affected the transition from student of teaching to teacher (Griffin, Barnes, Defino, Edwards, Hoffman, Hukill, & O'Neal, 1983). Areas focused on included program intents, critical program features, implementation processes, and program effects.

The Sample

The identification of programs included in this study was the result of an exhaustive review process. First, program descriptions from the four states with operational teacher induction programs were solicited and reviewed. Resource limitations coupled with a desire to develop a rich qualitative data base for the study necessitated a focus on just two of these four states. The final determination of the two states included in the RITE sample was based in part on a consideration of maximum geographical spread, in part on an informal survey of teacher educators designed to identify "promising" programs in the country, and in part on the explicit attention to both assistance *and* assessment dimensions found in the materials describing the programs.

The induction program in State #1 was mandated by one component of a more comprehensive House Bill passed in 1980. The declared intent of the legislation was to establish qualifications for teachers to insure that the education of children would be provided by teachers of demonstrated ability. In State #1 the department of education developed a standard plan of implementation that was used statewide including time lines and report forms. The district bears responsibility for establishing an assistance/assessment committee to work with each new teacher. According to the state guidelines, the committee must include an experienced teacher, a building level administrator, and one other educator from an institution of higher education. This committee has the responsibility to observe the new teacher in the classroom and to meet with the new teacher to offer assistance. An observation instrument focusing on four "categories" (i.e., human relations, teaching and assessment, classroom management, and professionalism) is used. This committee makes the recommendation regarding certification for the new teacher.

The induction program in State #2 was mandated through a Senate Bill approved in 1981 which provided for a beginning teacher program. The purpose of this program was to: (1) increase student learning by providing a set of supervised support services for teachers in their first year(s) of teaching in the state that would assist them in their continuing professional development, and (2) meet the requirements of the state statute and administrative code. Successful completion of the program is required for the superintendent or chief administrator to recommend the teacher for a full certificate. A State Board Rule in State #2 effective July 1, 1982 defined the Beginning Teacher Program as a "formal" program of at least one year. Each school district was required to submit a plan for approval by May 1, 1982. The State's guidelines specified the components to be included but each school district was responsible for developing its own specific plan and submitting that plan to the state board for approval. This plan must include provision for supervised support services for the continuing development and demonstration of specified competencies by the new teacher. The beginning teacher support staff must include a peer teacher, a building level administrator and one other (professional) educator. A "summative" evaluation plan must be provided which includes observation instruments and evaluation procedures to demonstrate successful performance of the minimum essential competencies. At least two "summative" evaluations are required, one within 90 working days of the beginning of the employment period in order to provide assistance where observations suggest it is needed. At least three "formative" conferences are required, each conference based on at least one observation by a support team member, using a set of common criteria. The state has developed and validated an observation instrument that can be used for this purpose. The instrument targets teaching behaviors in six domains: (1) planning, (2) management of student contact, (3) instructional organization and development, (4) presentation of subject matter, (5) communication, verbal and non-verbal, and (6) evaluation. Individual districts are free to propose an alternative to the state-developed instrument provided they can demonstrate stringent reliability characteristics and meet criteria for validity around the essential competency areas. Two districts within each targeted state were identified based on nominations for excellence in educational programming made by leaders in the state educational system and selected university based teacher educators. The rationale for this sampling strategy was tied to the goal of studying the implementation and effects of induction programs under optimal conditions. All four districts included in our sample from these two states were in their second year of implementation of the program at the time of the RITE study. In State #2 both districts were using the state developed assessment instrument.

Sixteen beginning teachers were drawn from each of the districts in the sample. In each district, two of the beginning teachers were to have been teaching in the same elementary school and the other two from the same junior high or senior high school. Working cooperatively with district level administrators we were successful in gaining commitments from four beginning teachers in each district (two elementary and two junior high/secondary) although the actual school assignments within districts were not balanced in the manner we had intended. In only three cases did we have two beginning teachers in the same school setting. The members of each beginning teacher's support team were invited to participate in the study. Only one individual (the peer teacher on a beginning teacher's team in State #2) declined to participate.

Data Collection and Analysis

Numerous data sources were drawn on in the process of conducting this study. Each beginning teacher participated in six interviews with RITE staff spaced throughout the year and completed a series of inventories and questionnaires. Beginning teachers were also observed on six occasions by RITE staff. There was also extensive data collection conducted with the support team members. The focus in this data collection was on documenting: support team member activity in the program, impressions and evaluations of the beginning teacher, impressions and evaluations of program features, and personal impact as a result of participation. Peer teachers were interviewed and observed on at least three occasions. They maintained journals and completed essentially the same battery of inventories and questionnaires as the beginning teachers. The building level administrators and "other educators" were interviewed on three occasions, maintained journals, and completed the Hunt's Paragraph Completion Test. Finally, program directors at the district level were interviewed three times during the year. The principle focus for these interviews was on program implementation.

The primary approach to data reduction and analysis was qualitative and focused on two areas: program implementation; and program effects. All data sources were scrutinized and to the degree possible triangulated in an effort to gather valid data on these areas. Four district level profiles and 16 case studies (one for each beginning teacher's experience in the program) were constructed in this manner.

Findings and Discussion

Program Implementation

Leadership in each district was vested in a program director. All four program directors were articulate in describing program intents and features. Our analyses confirmed implementation of the beginning teacher programs in each of the four districts with "high fidelity" (Loucks, 1983) to the broad state mandates and locally adopted provisions. Through the course of interviews spaced over the year, the program directors also demonstrated ongoing awareness of the progress of the beginning teachers included in our sample even though these teachers represented only four of the many first year teachers in each district. The only two problem areas that surfaced at the district level were with respect to "getting started" and support team assignments.

At the school level, our analyses of implementation revealed that substantive implementation was uneventful across school sites and seemed to be associated more often than not with two factors: (1) strong team leadership; and/or (2) prior contact. The "formal" leadership role was most often assumed by the building level administrator but in some cases the other educator took on this responsibility. In cases where no strong team leadership appeared, the induction program seldom rose above the procedural compliance level. Where there had been prior contact with the school by the beginning teacher (in particular through student teaching in the same setting), substantive implementation seemed to be at its greatest. Six of the 16 beginning teachers in our sample had completed student teaching in the school to which they were assigned for their first year of teaching. In all of these cases the enactment of the program was accomplished with ease and enthusiasm. There was an active commitment on the part of team members to seeing the first year teacher through this experience successfully.

Program Impact

In reporting on program impact we will rely primarily, but not exclusively, on data reflecting the participants' perceptions of program impact.

Beginning Teachers

The first year of teaching was not regarded as easy by the majority of beginning teachers in our sample. The kinds of concerns of beginning teachers uncovered in other studies such as concerns about self (e.g., do I fit?...am I adequate as a classroom teacher?...) and concerns about task (e.g., classroom management, content coverage, etc.) were well represented in our sample. Still, the experience was not as traumatic or incapacitating as some have argued. Rather, for the majority of beginning teachers, the first year was a demanding but manageable experience not without its rewards. The vast majority of our teachers felt the year had been a positive growing experience and all but two expressed the desire to return the following year.

As far as the impact of the induction programs, at their worst, the programs represented one more set of things the first year teacher had to deal with in addition to the demands typically facing the beginning teacher. For a small number of our beginning teachers the program seemed to heighten anxiety and uncertainty about their expectations for success. This was particularly true at the beginning of the year when the first year teachers were unclear about the exact nature of the program and its potential consequences on them personally. As the year passed and these few teachers gained a better understanding of the program, anxiety and uncertainty turned to apathy and sometimes hostility toward the program. The shift was most apparent in relation to the assessment or evaluation components of the programs. Our data indicated a strong shift in perception of importance among first year teachers relative to the evaluation procedures to be used from the early part of the year to the end. At the beginning of the year there appeared to be a strong feeling that these evaluation procedures were very influential on their behavior. By the end of the year the rating of importance dropped percipitously.

At their best, these programs insured early and sometimes frequent contact between the beginning teachers and "significant others" in the educational context in which they found themselves. This description fits the majority of the first year teachers in our sample. For most of our beginning teachers the most significant positive force on their experience was the peer or support teacher. The peer or support teacher was rated as extremely influential early in the year and continued to grow in influence as the year progressed. Peer/support teachers were regarded and referred to by beginning teachers variously as mentors, counselors, friends, and colleagues. They were valued primarily as a source of practical information and secondarily as a source of psychological support. Contacts with principals and other educators, though less frequent, were noted by many of the beginning teachers as being important influences on their first year teaching. The contacts with the principal through the program (when positive in nature) were interpreted and valued by the beginning teachers as approval and acceptance by the primary authority figure in the school. The "other educator" seemed to have the least impact on most teams but was still rated as an important contributor by most of the first year teachers. In State #1 (where the other educators were drawn from Higher Education), the comments of the first year teachers reflected the feeling that the approval of the other educator of their teaching performance was a continuing affirmation of their success and growth from the preservice experience.

The programs not only provided that contact occurred, but vis-a-vis the prescribed assessment procedures insured that the focal point for the contacts was the activity of teaching (in so far as teaching is represented in the assessment devices). The language used to describe teacher strengths and areas of need reflected the terminology used in the systems designed to evaluate performance.

These comments should not be taken to mean that all first year teachers in our sample were impacted to the same degree or even in a positive manner. Four of the first year teachers in our sample were dissatisfied with the program and questioned its value. Three of the four dissatisfied teachers were from the junior high/secondary level. All three were in difficult situations in terms of teaching load (anywhere from four to five course preparations per day) and all three had significant teaching responsibilities in areas outside their specialized field. The fourth dissatisfied teacher was trained at the secondary level in physical education and was teaching at the elementary level.

The Support Team

The program "intents" as revealed through legislative acts and program descriptions do not specify impact on program participants other than the first year teachers and their students. It became clear to us, however, as we analyzed the case data that many of the other participants were affected by their work in the program. Many of the support teachers, while reporting that they had often "helped" or taken first year teachers under their wing in the past, indicated that this program made the contact different. The recognition and responsibility that accompanied their participation gave them an enhanced image of themselves as professionals. Many of the principals, in particular those in State #2, were positive about learning the assessment instrument used in this program. The extensive training provided to principals in the use of this instrument was found to be useful in the way they observed regular teachers in their school. They were pleased to find a research based instrument that specified effective teaching behaviors. Many of the "other educators" (the university based team members) from State #1 reported that the contact with the schools was a growing experience for them. Comments were made about the effects of observing graduates of their own program functioning in real classrooms. These observations forced the other educators to reflect on their treatment of preservice teachers.

The only significant (consistent) negative impact statements came from building level administrators who voiced concerns over the amount of paper work required in the program, in particular in those cases where the outcome (in terms of a positive recommendation for a first year teacher) was clear from the beginning. This concern was even more pronounced where there were many first year teachers at a single campus site.

Fulfillment of State (Policy) Intents

The four district level directors were positive about their programs and indicated that this positive view was shared by most educators in their districts. The directors expressed greatest satisfaction with the assistance and support being provided to the first year teachers through the induction programs. Most of the directors expressed the view at one point or another that the degree of success in this "assistance" function was tied to the effectiveness of the individual first year teacher's "support" team.

While satisfaction was expressed in most cases with the "mechanics" of assessment, there was some concern over whether the program was effective in screening the profession. This observation takes on heightened significance when we consider the fact that all of the teachers included in our sample and practically all of the first year teachers in the four districts were recommended for certification. Of course, it is possible that we had, by virtue of our focus on highly regarded districts, isolated in our sample a group of promising first year teachers. Indeed, the data from our own observations of teaching documented use of effective teaching behaviors by these first year teachers at levels comparable to experienced teachers observed in other studies. Such performance would place all of the teachers we studied well above the minimal levels represented in the assessment devices. On the other hand, additional data secured through interviews with state officials indicated that nearly all of the teachers enrolled in the programs in the two states were recommended for certification. Such patterns would seem to call to question either the "gate-keeping" capacity of such programs or the real need for such programs in the first place on the grounds of controlling for quality of entering teachers.

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